FINANCIAL TIMES

FRIDAY 18 NOVEMBER 2022 — INTERNATIONAL NEWSPAPER OF THE YEAR — EUROPE

Beware tech founders distorting reality
JOHN THORNHILL, PAGE 19

Baghdad elite implicated in $2.5bn bank job
'HEIST OF THE CENTURY', PAGE 3

Balancing act
Britain unveils hefty tax rises

Rob Pinney/Getty Images

Jeremy Hunt, the UK's new finance minister, leaves Downing Street in London yesterday as he heads for the House of Commons to present the country's third fiscal event this year.

In contrast to his predecessor just two months ago, Hunt announced £55bn of tax rises and spending cuts in an effort to restore the UK's reputation and shore up its frail balance sheet.

The previous finance minister, Kwasi Kwarteng, sparked market panic in September with a "mini" Budget that included £45bn of unfunded tax cuts — the UK's largest tax-cutting plan in half a century. Hunt sought yesterday to unwind most of those measures with the biggest tax-raising effort for 30 years, leaving the UK with the highest tax burden since the second world war.

£55bn fiscal squeeze page 2
FT View page 18
Lex page 20

FTX crypto empire's lack of controls worse than at Enron, new chief says

- Bankman-Fried flaws laid bare
- Records chaos at failed $32bn group
- Customer funds 'misused'

KADHIM SHUBBER AND JOSHUA OLIVER — LONDON
SUJEET INDAP — NEW YORK

The new chief executive of FTX, an insolvency professional who oversaw the liquidation of Enron, has said that the bankruptcy of the crypto group is the worst case of corporate failure he has seen in more than 40 years.

John Ray III, who was appointed to run the FTX bankruptcy, said in a US court filing that he had never seen "such a complete failure of corporate controls and such a complete absence of trustworthy financial information".

The statement underlines the chaos and mismanagement at the heart of Sam Bankman-Fried's collapsed $32bn crypto exchange, which has plunged digital asset markets into crisis. Bankman-Fried did not immediately respond to a request for comment on the new filing.

Ray said he had found at FTX international, FTX US and Bankman-Fried's Alameda Research trading company "compromised systems integrity", "faulty regulatory oversight abroad" and a "concentration of control in the hands of a very small group of inexperienced, unsophisticated and potentially compromised individuals".

The scathing filing in the federal bankruptcy court in Delaware painted a picture of severe mismanagement by Bankman-Fried at FTX, which raised billions of dollars from top-tier venture capital investors such as Sequoia, SoftBank and Temasek.

> A group of 'inexperienced, unsophisticated and potentially compromised individuals' held sway

FTX failed to keep proper books, records or security controls for the digital assets it held for customers, used software to "conceal the misuse of customer funds" and gave special treatment to Alameda, said Ray. FTX did not have an accounting department and instead outsourced "this function".

The company did not have "an accurate list" of its own bank accounts or even a complete record of the people who worked for it. FTX used "an unsecured group email account" to manage the security keys for its digital assets, Ray added. The group's funds had been used "to purchase homes and other personal items" for staff and advisers, and payments were approved through the use of "personalised emojis" in an online chat, according to Ray.

He said "one of the most pervasive failures" at FTX's main international exchange was the lack of records. Bankman-Fried often used messaging platforms with an auto-delete function "and encouraged employees to do the same".

Among the assets listed was $4.1bn of loans from Alameda, $3.3bn of which was to Bankman-Fried personally and to an entity he controlled. Bankman-Fried previously told the Financial Times that FTX had "accidentally" given $8bn of customer funds to Alameda.

Ray said that among the core objectives of the bankruptcy proceedings was a "comprehensive, transparent and deliberate investigation into [potential legal] claims against" Bankman-Fried.

Academic and industry experts have told the FT that creditors might seek to have a "trustee" appointed to take over the management of FTX, given the scale of alleged misconduct before the failure.

Ray added that the fair value of the crypto assets held by the FTX international exchange was a mere $659,000 as of September 30. The filing does not include an estimate of crypto assets owed to customers but says they are expected to be "significant".

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SkyBridge bought FTX tokens page 10
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Briefing

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Retired partners have written to the accounting firm's leadership objecting to the radical plan to split its consulting and audit businesses.— PAGE 6

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A Dutch court has found three men linked to Russia's military guilty over the downing of the Malaysia Airlines plane over Ukraine in 2014.— PAGE 4

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Ukraine has said negotiators from Kyiv and Moscow have agreed to prolong a Black Sea export deal, a big step to easing a food crisis triggered by the war.— PAGE 2

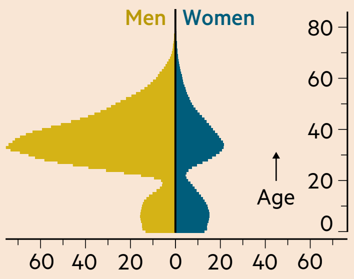
▸ Paris and Berlin jet boost
Germany and France are ready to rekindle their flagship fighter project, Europe's largest weapons programme, removing an irritant in their relationship.— PAGE 2

▸ German oil-ban warning
Berlin has warned of local shortages when the EU-wide ban on Russian oil comes into force in January in a bid to deprive Moscow of revenue.— PAGE 4

▸ Adler inflated earnings
Germany's financial regulator has found that the real estate group inflated its balance sheet by €3.9bn and its earnings by €543mn in 2019.— PAGE 8

Datawatch

Reigning men
Population of Qatar (000s), 2022



Source: UN World Population Prospects

Qatar's population is the most lopsided by gender in the world, with three men for every woman. More than 2mn migrant workers, most of them from South Asia, make up more than 90 per cent of the country's labour force

Rising Qatari gas exports pay for World Cup party
Analysis ▸ PAGE 9

Son owes SoftBank $4.7bn after value of his stake in Vision Fund 2 collapses

ROBERT SMITH — LONDON
KANA INAGAKI AND LEO LEWIS — TOKYO

Masayoshi Son personally owes SoftBank close to $5bn because of growing losses on the Japanese conglomerate's technology bets that have also rendered the value of his stake in the group's second Vision Fund worthless.

The billionaire's ballooning personal liabilities, discovered through a Financial Times analysis of SoftBank's recent filings, comes as the world's biggest tech investor was hammered by plunging tech stocks and valuations in private companies over the past year.

The 65-year-old chief executive and founder of SoftBank said last week he would step back from running day-to-day operations at SoftBank. His focus, he said, would be on the company's British chip subsidiary Arm, after the tech conglomerate reported quarterly investment losses of $10bn.

The widening losses in SoftBank's various investment vehicles have added billions of dollars to the tab that SoftBank's founder owes the group in relation to its bets. That is because SoftBank fronted Son the money to invest in its technology-related funds. He is under no obligation to repay for years.

The value of Son's 17.25 per cent stake in SoftBank's $56bn second Vision Fund was also wiped out entirely in September, having been valued at $682mn the previous quarter. Son's stake in the investment vehicle climbed as high as $2.8bn at the end of 2021, when heady valuations for start-ups enabled SoftBank to sell shares in public listings of portfolio companies such as WeWork.

SoftBank has not yet collected $2.8bn that Son owes in relation to his stake in the fund. Previously, SoftBank netted off the value of his equity from the amount he owed the group, meaning at the end of 2021 it stood at just $4mn.

Son also owes SoftBank $669mn under a similar arrangement on its Latin American fund, which has backed start-ups across the continent, although that is cut to $252mn when his equity value in the fund is taken into account.

The total sum the Japanese executive owes his company is $4.7bn, when losses in the group's shortlived internal hedge fund SB Northstar are taken into account, SoftBank confirmed to the FT.

If Vision Fund 2's investments in private tech companies had been profitable, the SoftBank founder stood to gain handsomely without putting in any upfront capital. Instead the arrangement has wiped billions of dollars off the net worth of one of Japan's richest men.

Austria	€4.30	Morocco	Dh50
Bahrain	Din1.8	Netherlands	€4.30
Belgium	€4.30	Norway	NKr45
Croatia	Kn32/€4.25	Oman	OR1.60
Cyprus	€4.00	Pakistan	Rupee350
Czech Rep	Kc120	Poland	Zl 24
Denmark	DKr43	Portugal	€4.00
Egypt	E£59	Russia	€5.00
France	€4.30	Serbia	NewD530
Germany	€4.30	Slovenia	€4.00
Greece	€4.00	Spain	€4.00
Hungary	Ft1350	Switzerland	SFr6.50
India	Rup220	Tunisia	Din7.50
Italy	€4.00	Turkey	TL50
Luxembourg	€4.30	UAE	Dh23
Malta	€4.00		

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World Markets

STOCK MARKETS

	Nov 17	Prev	%chg
S&P 500	3936.37	3958.79	-0.57
Nasdaq Composite	11137.04	11183.66	-0.42
Dow Jones Ind	33516.68	33553.83	-0.11
FTSEurofirst 300	1692.83	1698.29	-0.32
Euro Stoxx 50	3874.01	3882.78	-0.23
FTSE 100	7346.54	7351.19	-0.06
FTSE All-Share	4033.92	4035.87	-0.05
CAC 40	6576.12	6607.22	-0.47
Xetra Dax	14266.38	14234.03	0.23
Nikkei	27930.57	28028.30	-0.35
Hang Seng	18045.66	18256.48	-1.15
MSCI World $	2657.58	2678.23	-0.77
MSCI EM $	954.31	960.64	-0.66
MSCI ACWI $	616.56	621.28	-0.76
FT Wilshire 2500	5149.66	5201.51	-1.00
FT Wilshire 5000	40221.80	40633.93	-1.01

CURRENCIES

Pair	Nov 17	Prev	Pair	Nov 17	Prev
$/€	1.033	1.041	€/$	0.968	0.961
$/£	1.178	1.189	£/$	0.849	0.841
£/€	0.877	0.875	€/£	1.140	1.143
¥/$	140.580	139.345	¥/€	145.212	144.996
¥/£	165.589	165.723	£ index	78.069	78.145
SFr/€	0.986	0.981	SFr/£	1.125	1.121

CRYPTO

	Nov 17	Prev	%chg
Bitcoin ($)	16600.71	16659.37	-0.35
Ethereum	1209.02	1215.52	-0.53

COMMODITIES

	Nov 17	Prev	%chg
Oil WTI $	81.56	85.00	-4.05
Oil Brent $	89.89	92.86	-3.20
Gold $	1773.00	1771.35	0.09

GOVERNMENT BONDS

Yield (%)	Nov 17	Prev	Chg
US 2 yr	4.46	4.37	0.10
US 10 yr	3.77	3.73	0.04
US 30 yr	3.88	3.89	-0.01
UK 2 yr	3.16	3.04	0.12
UK 10 yr	3.20	3.14	0.05
UK 30 yr	3.35	3.31	0.04
JPN 2 yr	-0.04	-0.04	0.00
JPN 10 yr	0.24	0.24	0.00
JPN 30 yr	1.40	1.44	-0.04
GER 2 yr	2.11	2.08	0.03
GER 10 yr	2.02	1.99	0.02
GER 30 yr	1.92	1.93	-0.01

Prices are latest for edition
Data provided by Morningstar

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VISIT…

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INTERNATIONAL

Ukraine war

Kyiv's Black Sea grain export deal extended

UN and Turkey broker accord as Russian drones target power supplies

ROMAN OLEARCHYK — KYIV
AYLA JEAN YACKLEY — ISTANBUL
MAX SEDDON — RIGA

Ukraine says negotiators from Kyiv and Moscow have agreed to prolong a UN and Turkish-brokered Black Sea grain export agreement, a crucial step to alleviating a global food crisis triggered by the conflict.

"The initiative for safe transportation of agricultural products across the Black Sea has been extended for another 120 days," Oleksandr Kubrakov, Ukraine's infrastructure minister, said yesterday. "This decision was just taken in Istanbul. The UN and Turkey remained guarantors of the initiative."

The agreement was initially brokered in July by the UN and Ankara to end Russia's blockade of Ukraine's ports following Moscow's full-scale invasion in February. Ukraine is a leading exporter of grain and other agricultural products.

Food security experts have warned that shortages triggered by the war will lead to further price rises, with serious consequences for poorer countries.

Since the deal took effect on August 1, "Ukraine has exported more than 11mn tonnes of agricultural products to 38 countries around the world", Kubrakov said. "This is a significant amount, but not enough. The world market cannot replace Ukrainian agricultural products in the near future. At the same time, it is possible to increase the amount of our food for the world."

Grain prices fell after the deal was extended. Benchmark wheat futures traded in Chicago declined 2 per cent to $8 a bushel while corn dropped 1 per cent to $6.59 a bushel.

Kubrakov said Ukraine was still pushing for the agreement to be extended for at least a year and for it to include ports in the Mykolayiv region, in addition to the three ports in Odesa province that were part of the deal.

In a separate agreement with Russia, the UN has begun shipping fertiliser to African nations that has been stuck in European ports since the war started.

The UN worked with the US, UK and EU to create a general licence to assure private companies that there was a "blanket exemption" from sanctions for Russian food and fertiliser, and to encourage insurers to cover Russian-flagged vessels, a UN source said.

Ukraine and Russia still needed to agree to reopen a pipeline for ammonia that travelled through Ukraine, the UN source said. Ammonia, made from natural gas, is a feedstock for nitrogen fertiliser, but soaring gas prices have seen European fertiliser makers slash production by 70 per cent this year. Small farmers in poorer nations have been especially hard hit by the "fertiliser crunch" as prices more than doubled since 2019, the source said, raising fears that they will be unable to plant enough food for the next harvest.

The grain announcement came as Russia launched the latest barrage of missile and "kamikaze" drone strikes on electricity infrastructure across Ukraine, in a bid to cripple the country's power supply as winter nears.

Denys Shmyhal, Ukraine's prime minister, said at an investment conference in Kyiv that the strikes had also targeted natural gas production facilities, without identifying the locations.

Gillian Tett see opinion

Pelosi departs

Top Democrat to step down

Nancy Pelosi has announced she will not seek another term as the top Democrat in the US House of Representatives, leaving after almost two decades following her party's loss of its majority in midterm elections.

Pelosi's decision paves the way for a contest at the end of the month to replace her. "For me the hour has come for a new generation to lead the Democratic caucus that I so deeply respect," she said.

Pelosi, 82, pictured centre, has been a towering figure in US politics since becoming the first woman to lead a major party in Congress, in 2003, and the first to be House Speaker, in 2007. ***James Politi***

Anna Moneymaker/Getty

Ireland. IT crunch

Technology job cuts give Dublin 'wake-up call'

Redundancies highlight concerns that country is too reliant on the sector

JUDE WEBBER — DUBLIN

Mass global job cuts at Meta, Twitter, Stripe and other technology giants are bitter news for their staff in Dublin, coming just before Christmas. But analysts said they were a "wake-up call" for the side-effects of Ireland's overdependence on Big Tech.

Ireland's decades-long gamble on global IT has paid off in investment, jobs and billions of euros in taxes paid by the multinationals that have their European headquarters in the Irish capital's Docklands and employ 12 per cent of the capital's workers, according to stockbrokers Davy Group.

Big Tech's performance has helped supercharge Irish growth, and its extraordinary corporate tax revenues, despite Ireland's baseline rate for businesses being just 12.5 per cent, have given the government a deep fiscal cushion to tackle cost of living pressures.

With Meta sacking 13 per cent of its workforce, Elon Musk cutting Twitter's headcount by half and Stripe, the payments company founded by two Irish brothers, letting go of 14 per cent of staff, the tech bubble of the past decade may have burst as companies that expanded fast now face a rising cost of credit.

It will mean hundreds of jobs are lost in Ireland. Yet some here believe less reliance on the industry may be no bad thing for a country sometimes described as Europe's Silicon Valley.

"Ireland really bet the farm on the future of tech . . . almost at the expense of everything else," said Mark O'Connell, executive chair and founder of OCO Global, a trade and investment focused advisory firm. "It's not pleasant for people who are losing their jobs . . . but for other sectors that have been eclipsed by this, I think it can be maybe a good rebalancing."

A tech slowdown could also ease upward pressure on wages, fuelled by huge employment growth in the sector, economists said.

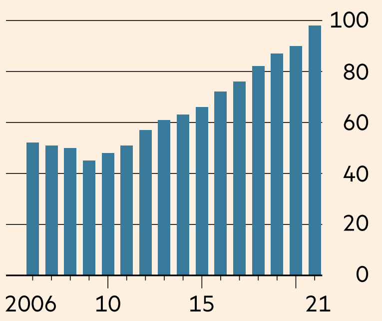
Ireland has added 24,000 new jobs in the information and communications sector since the first quarter of 2021, as the country hit record employment levels. The purchasing power of highly paid tech staff has driven up rents in a market where housing supply was already under severe pressure.

"The reality is that this is a necessary correction for a really overheating economy," said Danny McCoy, chief executive of employers' confederation IBEC.

He said Ireland's housing crisis and overstretched public services were "a real function of the imbalance in the economy". If some of those things "start to cool down now, that's actually a positive sign that we might be getting back to more normality", he added.

Ireland's growing Big Tech workforce

Number of ICT workers employed by multinational companies ('000)



Sources: IDA Ireland; Davy Group

Unlike when computer maker Dell moved a factory from Ireland to Poland in 2009, axing 1,900 jobs, the cuts this time will not crater the economy.

But Jean Cushen, associate professor of human resource management at Maynooth University, said the cuts were "a wake-up call", adding: "If these companies do decrease investment and if we are entering into a tech winter, there are not necessarily other sources of growth and sectors of growth."

The staff reductions, expected to amount to no more than 1,000 jobs in Ireland, have also spooked the government, which has warned for months that it cannot rely forever on the tax from tech giants precisely because that bonanza could one day vanish.

Big Tech and pharma multinationals make up more than half of corporate tax revenues, which at nearly €14bn in the nine months to September were almost €6bn ahead of the same period last year.

Tech workers, who account for 6.5 per cent of all jobs in Ireland, contribute 10 per cent of the income tax revenues, according to the finance ministry.

But no company has announced that it is shutting up shop in Ireland. Mark Redmond, chief executive of the American Chamber of Commerce Ireland, noted that the cuts coincided with the announcement of 520 new jobs in tech and Dell is investing €2mn in an existing centre for customers to test-drive new technologies in County Cork.

Patrick Walsh, founder and chief executive of Dogpatch Labs, a Dublin-based innovation hub and home to Ireland's national start-up accelerator NDRC, said the current crunch offered another opportunity: to give home-grown tech the same laser focus as Ireland has previously trained on Big Tech.

"The reality is that the Ireland of today has an unbalanced economy with concentration risk and an economic vulnerability as a result," added Walsh, who is also a member of the National Competitiveness & Productivity Council. "We created the number one fiscal policy environment in the world if you're a Google, but we lag behind when it comes to key start-up policies."

Defence

Germany and France set for fighter jet project's next phase

LEILA ABBOUD AND SARAH WHITE
PARIS
GUY CHAZAN — BERLIN
SYLVIA PFEIFER — LONDON

Germany and France are ready to move to the next phase of their flagship fighter jet project, rekindling Europe's largest weapons programme and removing a key irritant in their bilateral relationship.

The two countries and two of the main companies involved, Airbus and Dassault Aviation, are close to formally advancing to a crucial stage of the Future Combat Air System project, during which the demonstrator jet will be built, according to people familiar with the matter. A deal could be reached in the coming days, said two of the people, who spoke under condition of anonymity because of outstanding issues.

About €3.8bn had been earmarked for "Phase 1b" and a deadline set for the end of last year. But talks stalled after disagreements over sharing intellectual property between the companies, how work would be divided and the jet's specifications.

Further complicating matters were recent tensions between France and Germany, which emerged in October when a joint meeting of the French and German cabinets was postponed.

The two countries have found themselves at odds over everything from a proposal for an EU-wide cap on the price of gas to gas pipelines and emergency aid programmes for the energy crisis.

Speaking in Berlin on Monday as head of Germany's aerospace association, Mike Schoellhorn, chief of Airbus defence and space, signalled the next phase of FCAS was on a surer footing. "France and Germany are each convinced of the importance of FCAS. There is no alternative, it must work."

Launched by Berlin and Paris in 2017 and later joined by Madrid, FCAS is Europe's biggest defence project. It was designed to enhance the continent's strategic autonomy, strengthen political and military ties between its biggest economies and breathe new life into the European aerospace industry.

A French parliamentary report in 2020 put estimated development costs to 2030 at €8bn but cited external analyst forecasts of up to €80bn.

However, concerns among military and political officials that the project might never take off deepened because of wrangling between Airbus, which represents Germany in the project, and rival Dassault. There were battles over technology sharing and who would lead critical parts of the programme.

There has also been frustration about the inability of the French and German governments to break the logjam. "It's Europe's biggest weapons project and yet the lack of any political flanking for it is just amateurish," said Christian Mölling, a defence analyst with the German Council on Foreign Relations.

FCAS was conceived to include a next-generation jet designed to work seamlessly with drones and be fitted with advanced communications systems.

Airbus and Dassault converged on the bare bones of a pact just over two weeks ago, with each making concessions, people familiar with the talks said. Both declined to comment on the details.

See Lex

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Autumn Statement

Hunt unveils £55bn fiscal squeeze as UK's outlook darkens

GEORGE PARKER AND CHRIS GILES
LONDON

Jeremy Hunt, Britain's fourth finance minister of 2022, yesterday announced £55bn of tax rises and spending cuts, turning the ruling Conservative party's economic policy on its head.

He told a sombre House of Commons that a massive fiscal consolidation, including £30bn of spending cuts and £25bn of tax rises, was needed to restore Britain's credibility and tame inflation.

Hunt replaced Kwasi Kwarteng as finance minister five weeks ago at the height of the market panic induced by his predecessor's calamitous "mini" Budget of September 23. Former prime minister Liz Truss dismissed Kwarteng to restore market confidence, and Hunt reversed nearly all of his measures. The crisis later cost Truss her job.

Hunt yesterday insisted the tax rises and spending cuts were required by an "international crisis" and played down the idea that the problems were home-grown. "It is a recession made in Russia, a recovery made in Britain," he said.

But his statement was a recognition that Britain's dismal recent economic performance — hobbled by the 2008 crisis, the Covid-19 pandemic, the Ukraine war and Brexit — meant the country was living beyond its means.

Hunt told MPs that his Autumn Statement would ensure Britain's debt was falling as a share of gross domestic product by the end of the five-year forecast provided by the Office for Budget Responsibility, the UK's fiscal watchdog, which was sidelined by Kwarteng.

Britain's economic recovery from the depths of the pandemic has fallen short of its rivals. Figures collated by the OECD found the UK economy was still 0.4 per cent smaller in the third quarter of this year than in the final quarter of 2019; the eurozone was 2.1 per cent larger and the US 4.2 per cent bigger.

Hunt told MPs the global outlook was difficult. "We aren't immune to these global headwinds," he said. "But with this plan for stability, growth and public services, we will face into the storm."

While many Tory MPs were relieved the finance minister had confidently set out an economic plan to stabilise the British economy, there was far less certainty it would provide a platform for a fifth consecutive election victory.

"I hope you're preparing for government," one rightwing Tory MP told a Labour opposition minister.

Hunt and Prime Minister Rishi Sunak hope the tough medicine dispensed now will start to yield results before the country goes to the polls; the next election must be held by January 2025, meaning they have just two years to turn things round.

The OBR said that by 2027-28, Britain would have a tax burden of 37.1 per cent of GDP — 1 percentage point higher than forecast in March and a postwar record.

With Britain's economy sliding into recession, the OBR forecasts highlighted the challenge for household and public finances, both of which will be strained by predicted 2023 inflation of 7.4 per cent. The economy is projected to contract by 1.4 per cent and is not forecast to recover to pre-pandemic levels until the end of 2024.

Jeremy Hunt: 'It is a recession made in Russia, a recovery made in Britain'

The OBR said rising prices would erode real wages and reduce living standards in the biggest fall in six decades, down 7 per cent over the two financial years to 2023-24. This would wipe out the previous eight years of growth, despite more than £100bn of additional government support.

Much of the fiscal consolidation, including "stealth" rises in taxes and a big squeeze on public spending, is scheduled for the years after an expected 2024 general election.

Rachel Reeves, Labour Treasury spokeswoman, said it was intended as an election "trap" for her party.

Hunt delighted Tory MPs by finding money for the health and social care system, providing an extra £5bn a year, and a further £3bn for schools for the next two financial years.

See The FT View

INTERNATIONAL

Iraq 'heist of the century' exposes corruption crisis

Siphoning of $2.5bn from the tax authority over 11-month period has led to suspicion being cast across political elite

RAYA JALABI — BEIRUT

For almost a year, armoured vehicles carrying hundreds of thousands of Iraqi dinar bills have transited Baghdad's busy streets on a weekly basis.

The trucks, laden with tax funds siphoned off from state-owned bank Rafidain, were allegedly pulling off in broad daylight what has since been dubbed Iraq's "heist of the century".

In all, $2.5bn was allegedly spirited away from the tax authority between September 2021 and August 2022, said the ministry of finance, in a corruption scandal that is upsetting Iraq's hallways of power since it erupted last month.

The scandal broke days before new premier Mohammed Shia' al-Sudani's government was sworn in and he has said his administration will make fighting corruption a priority, which has "so brazenly spread through the joints of the state and its institutions". He has begun publicly purging acolytes of former premier Mustafa al-Kadhimi.

But Sudani, ostensibly an independent who is backed by some of the factions alleged to be involved in the scandal, may struggle to hold to account key members of the political establishment.

"The fault and the liabilities go all the way to the top," said Sajad Jiyad, a Baghdad-based fellow with think-tank the Century Foundation. "It implicates a lot of high-level players, ministers and ex-ministers, civil servants and well-connected businessmen. So this is a political issue; we'll see how far Sudani can go."

Corruption in Iraq is endemic and has corroded state institutions, sanctioned by a political class that has ruled since former president Saddam Hussein was toppled in 2003. The ethno-sectarianism to foster power sharing has entrenched horse-trading between factions competing for top government jobs.

This latest fraud is said to extend deep into Iraq's powerful but discordant Shia political factions, most of whom united this summer to name Sudani premier.

The new government is dominated by blocs linked to Iran, known as the Co-ordination Framework, and its affiliated militia groups, who fought against loyalists of rival Shia cleric Muqtada al-Sadr this summer as both sides jostled for control over government. Five people with knowledge of the probe said the latest scandal casts suspicion on all sides.

The scale of the fraud, which includes the tax authority, central bank and ministry of finance, emerged when the finance ministry revealed an internal probe found that from September 2021 to August 2022, about 250 cheques were written to five companies. They then withdrew funds held in escrow and earmarked to cover annual liabilities in accounts controlled by the tax authority at state bank Rafidain.

Graft pledge: PM Mohammed Shia al-Sudani has said fighting corruption is a priority

In a public letter after the embezzlement was revealed, ex-finance minister Ali Allawi said he had alerted Kadhimi's office about the scheme in November 2021 and ordered payments to be halted without his approval, but they continued. A former adviser to Kadhimi said the premier's office had not seen such "official correspondence" from Allawi.

The companies claimed to be acting for bigger firms, including international oil companies, the ministry said. Three of the companies were founded the month before the scheme began, four people close to the probe said.

In total, the ministry said 3.7tn Iraqi dinars ($2.5bn) were withdrawn from accounts at Rafidain, or about 2.81 per cent of Iraq's 2021 budget. Some of the cash was then used to buy US currency via the daily "dollar auction", in which Rafidain provides dollars to a commercial bank in exchange for dinars.

Three people in banking said the central bank and Rafidain must have known about the scheme as the uptick in dollars bought at auction was higher than usual and the amounts withdrawn were so large. They added that the volume of cash being moved daily would have required armoured trucks, implicating government security agencies.

"This thing is outrageous even by Iraqi standards," said one of the banking industry sources. "There is simply no way nobody noticed such large amounts were being withdrawn."

So far, the judiciary has issued travel bans against nine named suspects, including five senior civil servants at the tax authority and finance ministry and the companies' directors. One, Nour Zuhair Jassim, was detained trying to leave Baghdad on a private jet. Six people with knowledge of the probe say Jassim is a key suspect and the judiciary is probing his ties to Kadhimi aides, Sadrists, and Co-ordination Framework leaders, including former premier Nouri al-Maliki and paramilitary strongman Hadi al-Amiri. At least one of Kadhimi's advisers has been called in for questioning by the judiciary.

Investigators are also querying the role played by senior officials at the central bank and finance ministry. Allawi declined to comment. The finance ministry and central bank did not comment.

The former senior Kadhimi adviser denied any involvement by the ex-premier, his aides and his former oil and finance ministers. The Sadrist Movement's political wing did not comment. The secretary-general of the Co-ordination Framework declined to comment.

Renad Mansour, director of the Iraq Initiative at Chatham House, said: "Corruption in Iraq *is* the political system."

Summit spat
Xi takes aim at Trudeau over 'leak'

Exchange of views: Xi Jinping, right, speaks to Justin Trudeau through an interpreter on Wednesday
Adam Scotti/Prime Minister's Office/Reuters

Xi Jinping's carefully choreographed return to the global stage took an unprecedented turn on the final day of the G20 summit in Bali as the Chinese president upbraided Canada's prime minister for allegedly leaking the contents of a conversation between the two.

"Everything we discussed was leaked . . . that is not appropriate," Xi told Justin Trudeau through his interpreter, according to a video of the incident that was posted online.

Since he came to power a decade ago, even Xi's private interactions with foreign leaders have been tightly scripted. Accounts of the president's diplomatic meetings by China's foreign ministry and state media are also carefully crafted, with selective editing of foreign leaders' remarks to emphasise their agreement with Xi on his most important agenda items.

In his angry exchange with Trudeau, Xi referred to reports about an earlier conversation at the G20 summit, which ended on Wednesday. After that first brief encounter, initiated by Trudeau in a group setting, Canadian and international media outlets, citing people familiar with the exchange, reported the premier had expressed concerns about alleged Chinese interference in Canadian elections. "That is not the way the conversation was conducted," Xi added, accusing Trudeau of a lack of "sincerity".

"In Canada, we believe in free and open and frank dialogue, and we will continue to work constructively together," replied Trudeau, who did not appear to be accompanied by any aides or a translator. "But there will be things we will disagree on."

Xi then ended the conversation with a curt handshake and the two leaders walked away from each other.

Beijing was enraged by Ottawa's detention of a telecommunications executive in December 2018 at Washington's request for alleged violations of US export sanctions. Xi's administration retaliated by detaining two Canadians in a stand-off that was not resolved until September 2021.

Tom Mitchell, Singapore

INTERNATIONAL

Energy crisis

Berlin fears impact of EU's Russian oil ban

Germany warns embargo on imports threatens local supply shortages

GUY CHAZAN — BERLIN

Germany has warned of local oil shortages when the EU-wide ban on Russian oil comes into force in January, in a further sign of the disruption Europe's energy crisis is wreaking on the continent's largest economy.

The warning was contained in a response to a question posed by MPs from the opposition Christian Democrats about energy security in east Germany, home to two big refineries that depend on Russian crude. One of them, Schwedt, is a key supplier of petrol, diesel, jet kerosene and fuel oil to the regional economy, serving consumers such as Berlin's international airport.

In its response, the government detailed its efforts to diversify Schwedt away from Russian oil but acknowledged that the embargo could cause problems for the east German economy. "Depending on the scenario, local, temporary supply shortages and price increases can't be excluded," it said.

The EU's sanctions against seaborne exports of Russian oil take effect on December 5 and are a key part of its efforts to deprive Russian president Vladimir Putin of billions of dollars of revenue to finance his war against Ukraine. Hungary, Slovakia and the Czech Republic negotiated temporary exemptions from the ban, citing their lack of alternatives to Russian oil. All three rely heavily on the Druzhba pipeline that runs directly from Russia.

But despite the fact Schwedt and another eastern refinery, Leuna, are also connected to Druzhba, Berlin said it would implement the embargo in full by the end of this year, with no exceptions. Poland agreed to do the same. In September Berlin went further, seizing control of Schwedt from its owner, the Russian oil company Rosneft.

The government said the effect of reduced output from Schwedt and Leuna would be "challenging but manageable". It said Schwedt was trying to secure alternative supplies through two different pipelines — one from the German Baltic Sea port of Rostock and another from the Polish port of Gdansk.

The government said the Rostock-Schwedt pipeline "is and remains an important pillar of non-Russian crude oil supply to [the Schwedt refinery]". It can currently pump 5-6.8mn tonnes of oil a year to Schwedt but upgrading work should increase its capacity to about 9mn tonnes a year. The government announced in September it would provide €400m to finance the upgrade.

Ministers insisted that the pipeline can supply Schwedt with the "minimum volume technically required" to ensure normal operations. But critics of the Russian embargo have noted that Schwedt needs around 12mn tonnes a year of crude to operate at full capacity.

The Gdansk option remains on the table, officials have said, with the first tanker of oil to be delivered to Schwedt via the Polish port arriving at the refinery last week.

But in its response to the CDU the government damped expectations that the Gdansk-Schwedt pipeline could end up being a major source of supply for the refinery. It said the line had only "limited" capacity to pump oil to Schwedt because it also supplied Leuna and refineries in Poland.

Latin America. Business climate

Peru's political turmoil hits growth outlook

Third finance minister this year tries to steady investors' nerves and rebuild trust

JOE PARKIN DANIELS — BOGOTÁ

Anti-Castillo protesters clash with police in Lima this month. Below, Kurt Burneo
Sebastian Castaneda/Reuters

As legal woes mount for Peruvian president Pedro Castillo, his third finance minister of the year has admitted that roiling political dysfunction is damaging the business climate in the Andean nation.

"It is obvious that political stability affects confidence on the part of investors. It makes them doubt," Kurt Burneo, the South American country's finance minister, told the Financial Times.

"If there is no trust or it has been undermined, then obviously the investment rate is not going to make progress."

Castillo, the leftwing former teacher who appointed Burneo in August, is facing several criminal investigations for influence peddling. The opposition-led Congress is working on a third motion for his impeachment, although two previous attempts failed for lack of support.

Last month, Castillo described an investigation led by the attorney-general into wrongdoing as a "coup d'état". Close to 70 ministers have passed through the revolving doors of his chaotic administration since he took office in July 2021.

"The challenge is to separate economics and politics. We have to achieve that independence again," said Burneo, who has previously served as deputy finance minister, a central bank board member, and former director of the Inter-American Development Bank.

Like his predecessors, Pedro Francke and Óscar Graham, he is seen as a business-friendly bulwark against the more radical ideology of Castillo, who was elected to the presidency on the ticket of a Marxist-leaning party.

Political turmoil is nothing new in Peru. The country has had seven presidents since 2011, including three presidents in one week in November 2020. But despite the turnover, the economy continued to grow at one of the quickest rates in Latin America. Now, it appears that chaos is taking its toll.

On Tuesday, the finance ministry lowered its economic growth expectations for 2022 from 3.3 per cent to between 2.7 per cent and 3 per cent. Private economists say growth of 2.5 per cent this year is more likely. Last month, Fitch revised Peru's outlook from "stable" to "negative". "The volatile political and institutional dynamics are impairing business sentiment, adding headwinds to investment spending and real activity," said Alberto Ramos, the chief economist at Goldman Sachs for Latin America.

"The key challenge is to rebuild governability through a less confrontational relationship with other branches of government and regain policy initiative and control."

In September, Burneo unveiled a 3bn sol ($773mn) economic plan, which includes incentives for private investment and mining. Cash transfers alongside subsidies on public transport fares and energy bills also form part of the package, which if passed by Congress would go some way in fulfilling Castillo's campaign promises of greater social spending. There are currently 11 bills related to the package working their way through Congress.

"Burneo is trying to get projects that were already on the agenda moving, as their implementation was delayed due to the uncertainty in the executive," said Roxana Barrantes, a professor of economics at the Pontifical Catholic University of Peru. "Castillo has a very limited agenda."

Peru, like its neighbours, is heavily reliant on mining exports, which account for 60 per cent of the national total. The country is the world's second-largest copper producer, behind Chile. And while Castillo's base may consist of mining sceptics from the country's rural poor, Burneo has sought to calm nerves within the sector.

"Mining activity is vital, not only because of the economic activity it generates in the country, but also because of foreign exchange earnings," he said.

Burneo said that in order to boost mining exploration, he planned to develop an "incentive programme" that will extend a value added tax reduction benefit from three years to five. He added that there would be no new taxes levelled on the sector, as previously planned.

"There is no way to talk about mining activity if we don't talk about new exploration activities," the minister told the FT, adding that "the very fact that tax rates are stable" will promote mining activity.

> 'The volatile political and institutional dynamics are impairing business sentiment'

And whatever the regulatory framework looks like, negotiating the delicate balance between mining companies and sceptical local indigenous communities is crucial, and nowhere more so than at the massive Las Bambas copper mine, owned by Chinese-controlled MMG.

Protests at Las Bambas' copper mine and trucking routes have repeatedly halted operations, with mine shutdowns for over 50 days this year due to demonstrations. The Huancuire community — one of several that lives near the mine — opposes plans to open a new mining pit on land they once owned, though Burneo told the FT that the law was on the company's side.

"The piece of land has already been sold to the mining company and it cannot be sold twice," he said, adding that the burden for resolving disputes with communities lay not only with the state. "The participation of mining companies must also be seen there because it is these companies that are going to benefit as a result of the economic activity."

Malaysia Airlines

Three found guilty of murder over downing of flight MH17

CHRISTOPHER MILLER — KYIV

A Dutch court has found three men with links to the Russian military guilty of murder for their roles in the downing of Malaysia Airlines flight MH17 over eastern Ukraine in 2014, sentencing them to life imprisonment.

One man was acquitted due to lack of evidence. The case could set a legal precedent as Ukraine pursues justice for crimes by Russian forces since Moscow's annexation of Crimea and covert invasion of eastern Ukraine with the help of separatist proxies in 2014, and its full-scale invasion this year.

The Boeing 777 passenger jet was heading from Amsterdam to Kuala Lumpur on July 17 2014 when a Russian Buk surface-to-air missile exploded near the cockpit. The blast caused the aircraft to crash in eastern Ukraine, killing all 298 passengers and crew, including 80 children and 193 Dutch citizens.

At the conclusion of the two-and-a-half-year trial yesterday, a panel of Dutch judges in The Hague found Russians Igor "Strelkov" Girkin and Sergey Dubinsky, as well as Ukrainian Leonid Kharchenko, guilty of murder; Russian Oleg Pulatov was acquitted. The court ordered the guilty parties to pay €16mn in damages to the victims' next of kin.

Pulatov was represented in court by a lawyer while the other three were tried in absentia; all remain free, raising doubts over whether the trio will serve their sentences. The men are believed to be either in Russia or Ukrainian territories under Moscow's control.

"An important court decision in The Hague," said Ukrainian president Volodymyr Zelenskyy in a tweet after the verdict. "First sentences for perpetrators of the #MH17 downing. Holding to account masterminds is crucial too, as the feeling of impunity leads to new crimes."

All four were proved through the Dutch-led international investigation to have been involved to various degrees with the transfer of the Buk missile system — identified as coming from the 53rd Anti-Aircraft Missile Brigade in Kursk — to eastern Ukraine. It is still not known who pushed the button.

The quartet, with Russian officials, denied wrongdoing despite evidence showing their direct involvement in the plane's downing. Russia's foreign ministry said yesterday it would "study the verdict" before responding.

The area where MH17 was shot out of the sky was the scene of fierce fighting between Ukrainian forces and Russian troops and their separatist proxies.

Several military aircraft had been downed with surface-to-air weapons in the weeks before the attack on the commercial jet.

"Flight MH17 crashed because it was hit by a Buk missile fired from a field near Pervomaiske," presiding judge Hendrik Steenhuis said in court.

Steenhuis said investigators and prosecutors built their case on evidence, including intercepted telephone calls, witness testimony, journalistic reports, open-source images and videos, analysis of missile fragments and a partial reconstruction of the plane with parts recovered from the crash site.

He said the evidence proved the armed invasion of Ukraine in 2014 was ordered and controlled by the Kremlin, and thus Russia was responsible for the shooting down of MH17.

Pandemic

Chinese city battles record Covid outbreak

GLORIA LI, QIANER LIU AND PRIMROSE RIORDAN — HONG KONG
EDWARD WHITE — SEOUL

A Covid-19 outbreak in one of China's biggest cities is on a knife edge following public protests and intense political debate among top officials over conflicting guidance from Beijing on how to handle the record surge in cases.

Regional Communist party leaders in Guangzhou, the capital of southern China's Guangdong province with a population of 18mn, have been caught between relaxing some coronavirus measures while still trying to suppress the spread of the virus.

"Officials were still discussing the need to lock down the city last week, as the number of infected people was rising so rapidly that it was causing the government to panic," said an adviser at the Guangdong Provincial Centre for Disease Control and Prevention.

The dilemma facing provincial and city leaders is being closely watched as a critical test of President Xi Jinping's hallmark zero-Covid policy, after Beijing signalled plans to relax some quarantine and contact-tracing requirements last week.

There is mounting uncertainty over how officials will respond to a surge in Omicron outbreaks across the world's most populous country, including in Beijing and the south-western megacity of Chongqing. There are also questions about the financial sustainability of zero-Covid as local governments run out of funds to pay for daily mass PCR testing.

"Guangzhou's current control approach is like an experiment, concentrating only on areas where the number of infections continues to rise and maintaining normal order in other areas," the Guangdong CDC adviser said.

Guangzhou has reported more than 33,000 cases since October. Daily cases hit a record 8,761 on Wednesday, more than double the rate at the peak of a crippling two-month lockdown in Shanghai this year.

As of Monday, lockdowns are in place across areas responsible for more than 15 per cent of China's gross domestic product, up from 12 per cent the previous week, according to Nomura data.

"It's hard to execute [Beijing's easing guidelines] while still sticking to the zero-Covid goal," said a Guangzhou resident, referring to the city's frequent changes in its daily Covid testing requirement.

While Guangzhou has averted a city-wide lockdown, at least 9mn residents across five of the city's 11 main districts are facing heavy-handed restrictions on movement and are required to take daily tests.

The Guangzhou government announced yesterday it would immediately lift quarantine for "close contacts of close contacts" as it attempted to fall in line with some of Beijing's new rules.

However, conditions in Guangzhou have sparked isolated protests, mostly focused in so-called urban villages — groups of tenements built on former farmland and housing mostly poorer workers and families.

Fuels

US diesel and heating oil stocks at fresh lows

AMANDA CHU — NEW YORK

US stocks of diesel and heating oil have plunged to historic lows, driving up prices for fuels critical to industry, freight, farming and many households.

Inventories of the fuel category that includes both products stood at 107.4mn barrels last week, according to government data released on Wednesday, up slightly from the week before but the lowest level for this time of year since 1951.

The highway price of diesel is up 47 per cent from a year ago to $5.35 a gallon, while heating oil has jumped 70 per cent to almost $6 a gallon. West Texas Intermediate, the US crude benchmark, has gained only 6 per cent year on year.

"It's a challenging environment. There's no question that the energy markets are volatile, and the inventories are historically low," said Michael Ferrante, president of the Massachusetts Energy Marketers Association, a trade group whose members include heating oil dealers.

The contraction of diesel stocks comes amid steady demand and rising exports to Europe to offset supplies from Russia. Pressure on US stocks is expected to worsen in the winter, when European sanctions on seaborne Russian crude oil tighten in December and are extended to refined petroleum products in February. The changes threaten bidding wars between the US and Europe. The International Energy Agency warned on Tuesday of "fierce" competition for diesel.

> 'It's a challenging environment. There's no question that the energy markets are volatile'

"If Russian flows of diesel get cut off, everybody's tighter and then it becomes more of a competition for who gets the volumes," said Richard Joswick, head of global oil analytics at S&P Global Commodity Insights.

Officials in the Biden administration have said "all options remain on the table" to deal with the decline in stocks, including restrictions on exports.

Shippers have already rerouted some international diesel cargoes originally destined for Europe to the US northeast, drawn by strong prices, according to Oil Price Information Service, which tracks global oil markets.

"Even though inventories themselves may be low, the reality is the market will price itself in such a way to attract that barrel from anywhere and everywhere," said Eric Slifka, chief executive of Massachusetts-based Global Partners, which operates oil storage terminals and petrol stations.

US diesel supplies have been pinched by recent closures of refineries, including Philadelphia Energy Solutions' large 335,000 barrels-a-day plant on the US east coast.

As of January 1, US crude oil refining capacity averaged 17.9mn b/d, the lowest since 2014, according to the US Energy Information Administration.

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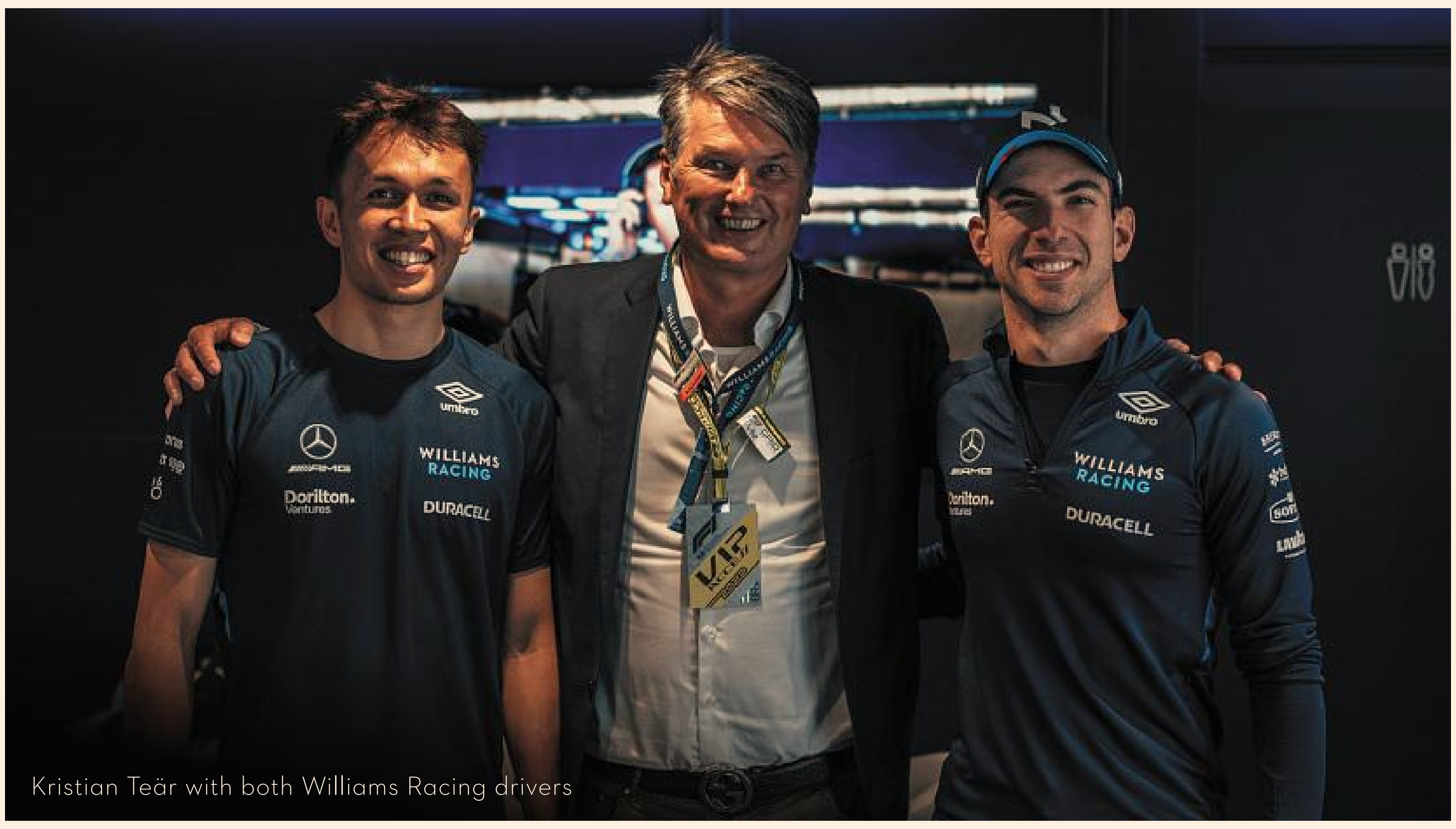
PRECISION, PERFORMANCE, IMMERSION: WHY BANG & OLUFSEN AND WILLIAMS RACING ARE THE PERFECT MATCH



Kristian Teär with both Williams Racing drivers

Winning design takes more than one flash of inspiration. It takes decades of research and experimentation, making the finest of adjustments in the endless search for perfection. For both Williams Racing and Bang & Olufsen, this constant process of improvement is key, making them natural partners. The proof is in the performance.

'For nearly 100 years, Bang & Olufsen has been at the forefront of design and innovation and created some of the most memorable and iconic products in the world. And we have that same desire for perfection,' says Jost Capito, Williams Racing CEO and Team Principal.

AMPLIFYING THE MOMENT

At Bang & Olufsen's factories in Struer, Denmark, almost a century's worth of expertise in sound engineering and material innovation is focused on putting you right in the heart of the action through an unparalleled audio visual experience – changing how we all see, hear and feel the world. Their aim is to deliver those hard-to-define 'goosebump moments' – the visceral thrill of being truly lost in an immersive world of your choosing.

New Beosound Theatre

That could mean soundtracking your life the way you want it, finding your own space and shutting out the noise that surrounds you – just as the Williams Racing team do when they need to focus, relax or escape – as detailed in the Race Tracks series created by both brands.

For Williams Racing, it's all about being 'in the zone'.

A TRACK-SIDE EXPERIENCE FROM YOUR OWN HOME

Similarly, it could mean experiencing the full excitement and adrenalin rush of a Formula 1 race day, putting you right in the driving seat amidst the cars, the crowds, and the commentators without ever leaving your sofa. And you can even compete yourself too, thanks to the hyper-realism of esports – where groundbreaking sound and vision in perfect harmony help you to suspend your disbelief.

That's where Bang & Olufsen's new Beosound Theatre comes in. Just like Williams Racing, the research and development team at Bang & Olufsen work tirelessly to ensure that every element of a design works in harmony to produce the ultimate experience. The result is a beautifully designed soundbar that completely reinvents what home cinema can be – in terms of performance and longevity.

Seamlessly slotting with any screen or home entertainment system, it offers the power, clarity and immersion of a multi-speaker setup without the need for ugly black boxes or cable clutter. And at the same time, it's built to outlast any TV solution on the market today due to it's modularity and technology choices.

'Like Williams Racing, we see design as a constant process,' says Kristian Teär, Bang & Olufsen CEO. 'This time, we asked two fundamental questions. Can we design a product that gives our customers the full cinematic experience in just one product? And can we build it to last beyond normal TV cycles? The answers are yes, and it's so satisfying when you find solutions to challenges you've been working on for so long.'

A NEW VISION FOR SOUND

Demonstrating the same refusal to cut corners as Williams Racing, the design and innovation team at Bang & Olufsen always look to push the envelope, broadening the scope of what is possible in terms of faithful sound delivery. It's all about making the hairs on the back of your neck stand up – delivering a truly 360° experience, as close to the real thing as it gets – and liberating the moment by enabling our senses.

As for the real thing – Williams Racing driver Alex Albon knows all about how the smallest detail can affect the overall result. 'It's a combination of everything. And it's a chase for perfection. It's a chase for precision,' he says. 'We're extremely driven and hungry to achieve that... it's always just striving to be better' The secret to true innovation is never resting on one's laurels, constantly striving to go further and better than anyone has gone before – seeking the challenge in the road ahead.

BUILT FOR THE LONG ROAD

And with the future in mind, Bang & Olufsen always puts the emphasis on longevity – finding solutions to obsolescence by embracing modular design. And all built with high performance, hard-working materials including natural wood and aluminium. Because, as fast-paced as the world of design innovation is, they are committed to creating modern-day classics: icons for tomorrow that have been designed to be cherished for years to come. That doesn't simply mean creating timeless products, but also raising the bar in terms of anticipating the future.

Williams Racing have shown how true design inspiration comes from imagining how the world could be, anticipating the twists and turns ahead, and keeping one's eye on the prize. It's about embracing an approach to technology that allows for as-yet unknown developments, with components intended to be customisable and upgradeable wherever possible.

The only difference is, for Bang & Olufsen, it's about processing power instead of horsepower: meaning they can introduce new features, capabilities and connectivity over time to existing products in order to match the demands of the next generation. The only thing they can't supply is the G-Force.

Alex Albon wearing B&O Headphones

WILLIAMS RACING

Lion's share Brexit has helped Paris challenge London for the title of Europe's biggest stock market ➔ MARKETS, PAGE 10

Companies & Markets

Ex-EY partners join forces to voice fears on split proposal

- Risks spelt out by more than 150
- Questions raised over Di Sibio role

STEPHEN FOLEY — NEW YORK
MICHAEL O'DWYER — LONDON

More than 150 retired EY partners have written to the accounting firm's leadership objecting to the radical plan to split its consulting and audit businesses.

In a three-page memo seen by the Financial Times, the retired US partners said the plan as envisaged threatened to weaken both halves of the firm while asking whether Carmine Di Sibio, EY's global chief executive, was properly protecting the interests of the audit business.

EY's global leadership decided in September that a spin-off of the consulting unit would allow both halves of the firm to grow faster, free of conflict-of-interest rules that stop consultants working for audit clients. The split must be approved by EY's 13,000 partners in country-by-country votes at individual member firms, but these cannot go ahead until more details are hammered out. The hope of holding the first votes in large territories such as the US and the UK before year-end has faded.

> The memo was drafted after a webcast that 'raised more questions than it answered'

Retired partners do not have a vote but have interests at stake. EY has about $7.5bn of pension obligations in the US that it must apportion to the two businesses, the bulk of which will sit with the audit firm. The consulting arm is expected to raise about $30bn in the debt and equity markets, and transfer some of that to the audit business to cover a substantial portion of the pension obligation, as well as to fund large cash payments to audit partners.

After the split, the audit business "will have a significantly lower level of earnings", the retired partners wrote, and the obligation to pay their pensions could "potentially strain" the business.

The memo was penned after a webcast for EY's 3,000 retired partners in the US last month, which its writers said "raised more questions than it answered". It was sent to leaders of EY's US partnership in an email with more than 150 signatories.

The memo grouped concerns under four headings. In addition to the pension concerns, it questioned the process by which decisions on the split were being made, and why the leadership of the two businesses had not been announced. While Di Sibio is expected to lead the consulting arm, no one has been picked to run the audit side. The audit arm is called AssureCo in planning documents even though it will retain the EY brand. The ex-partners had "concerns surrounding who is protecting the interests of the partners and employees that will continue in AssureCo. Currently it appears that Mr Di Sibio is presiding over the decisions relating to both entities. This makes no sense."

Another area of concern is how EY will split its tax practice, a majority of which will go with the consulting business while tax compliance partners stay with the audit arm. "The bifurcation could result in neither practice having the size, scale and competence to be truly viable in the marketplace," according to the memo.

EY said: "We appreciate the feedback from our retired partners. We are taking this bold step because we believe this will provide the best opportunities for growth and success and better serve EY people, clients and broader stakeholders, including retired partners."

The memo urged the leadership to consider delaying the split and to take their criticisms "constructively".

Chinese wall Activision Blizzard to go offline in biggest gaming market as NetEase deal falters

Activision's online games, including 'Overwatch', will probably be turned off in China in January — Blizzard Entertainment

TIM BRADSHAW — LONDON
RYAN MCMORROW — BEIJING

Popular video games including *World of Warcraft* and *Overwatch* are set to go offline in China, hitting revenues for their creator Activision Blizzard as it seeks to complete a $75bn sale to Microsoft.

China is the world's largest gaming market but foreign developers need a local partner to distribute games in the country. Beijing also censors gaming content and controls new releases through a licensing system.

Activision Blizzard said yesterday it was unable to reach a deal to renew a licensing agreement with NetEase, one of China's largest game developers and publishers, which has distributed its games there for years.

The California-based company said last week that the NetEase agreement in dispute accounted for about 3 per cent of its net revenues last year, translating to about $264mn in sales.

Activision Blizzard president Mike Ybarra said the company was "immensely grateful for the passion" Chinese gamers had for their titles and that the company was looking for alternative distribution partners.

NetEase chief executive William Ding said they "put in a great deal of effort and tried with our utmost sincerity" to negotiate with Activision Blizzard but could not bridge "material differences on key terms". The company said the affected games represented a low single-digit percentage of its revenues and profits.

NetEase shares fell 9 per cent in Hong Kong yesterday.

Activision Blizzard will need new game licences from the government if it finds a new partner, which may take months or years, said Cui Chenyu, a gaming analyst at research company Omdia. "The companies could still come to terms but there are challenges because they are both shifting their business strategies. Blizzard is preparing for its Microsoft takeover and NetEase is focused on expanding globally," she said.

The contract dispute is the latest hurdle for a US game developer in Chinese market.

Online gaming company Roblox was forced to pull the local version of its hit game in China because of unspecified data processing issues in December. Almost a year later, it remains offline, despite a partnership with gaming giant Tencent.

One person familiar with the NetEase and Activision Blizzard talks said the dispute was commercial rather than geopolitical.

New sales of Activision Blizzard's titles will be halted in the coming days, with the servers for online play likely to be turned off in January when the current deal expires.

Additional reporting by Eleanor Olcott

Temasek in $275mn FTX write-off after trust proved 'misplaced'

MERCEDES RUEHL — SINGAPORE
SCOTT CHIPOLINA — NASSAU

Temasek has written off its $275mn stake in crypto group FTX, with the Singapore state investor saying its trust in former chief executive Sam Bankman-Fried appeared "misplaced".

Temasek invested $210mn in FTX International and $65mm in the group's US subsidiary across two funding rounds. The cost of the investment was 0.09 per cent of its S$403bn (US$293bn) portfolio, it said yesterday.

Temasek was one of the blue-chip investors in Bankman-Fried's cryptocurrency exchange, which collapsed this month. SoftBank's Vision Fund and Sequoia Capital have also had to mark down their FTX investments to zero.

Along with Temasek, the support of international investors including BlackRock and the Ontario Teachers' Pension Plan gave FTX credibility.

"It is apparent from this investment that perhaps our belief in the actions, judgment and leadership of Sam Bankman-Fried, formed from our interactions with him and views expressed in our discussions with others, would appear to have been misplaced," Temasek said.

The investor defended its "extensive" eight-month due diligence of FTX in 2021. It was "not practicable to eliminate all risks", it said.

Temasek's writedown comes as FTX publicly distances itself from Bankman-Fried, who has repeatedly taken to Twitter to make statements about the company he founded and the events that led to its collapse.

"Mr Bankman-Fried has no ongoing role at [FTX], FTX US, or Alameda Research Ltd and does not speak on their behalf," John Ray, the newly appointed chief restructuring officer and chief executive at FTX, said.

Bankman-Fried, who resigned as chief executive on November 11, the day FTX filed for bankruptcy protection in Delaware, said on Wednesday that the group became "overconfident and careless" as its brand grew.

"FTX was the darling of Silicon Valley," he said, adding that he was going to "care less" about a "dumb, contentless, 'good actor' framework". He also said that financial services regulators had an "impossible job".

See Markets and Lex

Legal Notices

In the High Court of Justice, Business and Property Courts of England and Wales, Companies Court (ChD) Cr-2022-002956

In the Matter of Hodge Life Assurance Company Limited

and

In the Matter of Omnilife Insurance Company Limited

and

In the Matter of Part VII of the Financial Services and Markets Act 2000

Notice is hereby given that on 31 October 2022, an Application was made under section 107 of the Financial Services and Markets Act 2000 (the "Act") to the High Court of Justice Business and Property Courts of England and Wales Companies Court (ChD) (the "Court") by

(i) Hodge Life Assurance Company Limited (formerly known as Home Reversions Limited, and Carlyle Life Assurance Company Limited), a private limited company incorporated in England and Wales with registered company number 00837457 and whose registered office is at Level 45, 22 Bishopsgate, London, United Kingdom, EC2N 4BQ ("Hodge Life"); and

(ii) Omnilife Insurance Company Limited (formerly known as Omnilife Overseas Insurance Company Limited), a private limited company incorporated in England and Wales with registered company number 02294080 and whose registered office is at Level 45, 22 Bishopsgate, London, United Kingdom, EC2N 4BQ ("Omnilife")

(together the "Applicants") applying for, inter alia, orders of the Court under section 111 of the Act sanctioning a scheme (the "Scheme") and making ancillary provision in connection with the Scheme pursuant to sections 112 and 112A of the Act. The Scheme provides that all long-term life insurance and annuity business written and/or assumed by Hodge Life be transferred to Omnilife together with all assets, liabilities and contracts relating to the business being transferred.

Copies of the Scheme document, a report on the Scheme prepared by an independent expert under section 109 of the Act (the "Scheme Report"), a statement setting out the terms of the Scheme and a summary of the Scheme Report and other related documents, including sample copies of the communications to policyholders may be obtained by any person free of charge on Hodge Life or Omnilife's websites respectively www.hodgelife.co.uk and www.omnilife.co.uk. The websites will be updated for any key changes to the proposed Transfer. You can also request free copies of any of these documents using the details below.

Any questions or concerns relating to the proposed Scheme should be referred to the Applicants using the details below.

Hodge Life Policyholders	Omnilife - Annuity Policyholders	Omnilife – All Other Policyholders
+44 (0) 800 389-7870*	+44 (0) 800 783-3544*	+44 (0) 808 175-0744*
HodgeLifeTransfer@equiniti.com	PViiTransfer@equiniti.com	Transfer@omnilife.co.uk
Equiniti, Hodge Life Assurance Company Limited, PO Box 5266, Aspect House, Lancing, BN99 9HF.	Equiniti, Omnilife Insurance Company Limited, PO Box 5267, Aspect House, Lancing, BN99 9HJ.	Response Manager, RGA, Level 45, 22 Bishopsgate, London, EC2N 4BQ.

The Application is due to be heard at the High Court of Justice of England and Wales, 7 Rolls Buildings, Fetter Lane, London, EC4A 1NL, United Kingdom on 20 March 2023. Any person who thinks that he or she would be adversely affected by the carrying out of the Scheme, or objects to the Scheme, may attend the hearing and express their views, either in person or by a representative. It is requested that anyone intending to do so informs the Applicants (using the contact details set out above) as soon as possible and preferably before 10 March 2023 to set out the nature of their objection. This will enable the Applicants to provide notification of any changes to the hearing and, where possible, to address any concerns raised in advance of the hearing.

Any person who objects to, or considers they may be adversely affected by, the Scheme but does not intend to attend the hearing may make representations about the Scheme by giving written notice of such representations to the Applicants using the contact details provided above, in each case as soon as possible and preferably before 10 March 2023.

The Applicants will inform the Financial Conduct Authority and Prudential Regulation Authority of any objections raised in advance of the hearing, regardless of whether the person making the objection intends to attend the hearing.

If the Scheme is sanctioned by the Court, it will result in the transfer of all the contracts, property, assets and liabilities of Hodge Life to Omnilife save where otherwise specified in the Scheme, notwithstanding that a person would otherwise be entitled to terminate, modify, acquire or claim an interest or right or to treat an interest or right as terminated or modified as a result of the transfer of business effected by the Scheme. Any such right will only be enforceable to the extent the order of the Court makes provision to that effect. Subject to the sanction of the Court, the Scheme is currently anticipated to be effective at 23:59 GMT on 30 April 2023.

18 November 2022

Norton Rose Fulbright LLP, 3 More London Riverside, London, SE1 2AQ, United Kingdom

Solicitors acting for Hodge Life Assurance Company Limited and Omnilife Insurance Company Limited

Ref: MAR/1001197931

*The phone lines will be open from 9am to 5pm Monday to Friday. Calls are free if calling from the UK, but could be charged if calling from abroad. For our joint protection, we may record and/or monitor telephone calls.

United States District Court for the Northern District of California

Twitch Interactive, Inc. v. Mango and CreatineOverdose, No. 3:21-cv-7006-JST (N.D. Cal.)

TO: CreatineOverdose

A lawsuit has been filed against you. Within 21 days after service of this summons on you (not counting the day you receive it), you must serve on Twitch Interactive, Inc. an answer to the second amended complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure.

The answer or motion must be served on Twitch or Twitch's attorney, whose name and address are: KATHERINE M. DUGDALE, ESQ., PERKINS COIE LLP, 1888 Century Park East, Suite 1700, Los Angeles, CA 90067. If you fail to respond, judgment by default will be entered against you for the relief demanded in the second amended complaint. You must also file your answer or motion with the court.

Published October 28, November 4, 11 and 18, 2022.

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It's time for tech founders and activist investors to get along

INSIDE BUSINESS
TECHNOLOGY
Richard Waters

Silicon Valley's culture of founder-dominated companies stands in direct conflict with the Wall Street tradition of activism by outside shareholders. As some of the most successful tech companies face sagging growth and slumping share prices, can the two sides find a way to get along?

That question is being put to the test most clearly at Meta and Alphabet, which have been on the receiving end of public letters from disgruntled shareholders in recent weeks. The insider control at both companies, enshrined in special classes of stock that give founders extra voting rights, means they can ignore unhappy investors with impunity. But the well-timed missives have hit a nerve at a time when Big Tech's headlong growth has slowed.

The justification for supervoting shares was laid out most clearly by Google founders Sergey Brin and Larry Page at the time of their 2004 initial public offering. Their letter, which became a foundational text for the next generation of tech entrepreneurs, argued that founder control was needed to protect their company's focus on the long term.

Less often noted, however, is that Google's founders actually sought to define what they meant by the long term. Most projects, they said, should show "some realised benefit or progress" within two years, while their own decisions would be based on "three to five-year scenarios".

Contrast that with the actual results of some of the most expensive bets from Alphabet, Google's parent company. Its driverless car project is nearly 14 years old, with no sign of a market breakthrough yet. In all, the company's moonshot projects have racked up losses of $33bn since 2015.

Activist investor TCI, which holds a $6bn stake in Alphabet, is one those trying to force the kind of discipline that the founders themselves claimed to believe in. A similar concern motivated Altimeter Capital to call on Meta to slash its spending. The social media company is still relatively early in its long-term bet on the metaverse. But its open-ended bet on a giant project with no prospect of serious revenue in the near term triggered a collapse in its share price late last month.

> 'It's in no one's interest if the company becomes so fat and unhealthy. The argument is going to be true for all'

Behind these shareholder entreaties is a fear that the riches amassed during the tech boom are being wasted, and that the claims of long-term focus are an excuse for financial indiscipline. According to critics, capital has been used inefficiently, while cash is piling up at companies spoilt for choice of what to invest in next.

Apple, whose management is not protected by supervoting shares, came under intense pressure about a decade ago to stop hoarding cash. The giant stock repurchases that followed turned out to be a boon for investors without weakening Apple's ability to invest, and the company's shares went on to rise seven-fold.

The rapidity with which tech cycles often move has also given the lie to the long-termist argument. Some tech companies that went public with supervoting shares have had their strategic and management weaknesses exposed with startling speed.

Games company Zynga was sidelined by the boom in mobile gaming soon after its 2011 IPO and the founder eventually took the rare step of willingly giving up control. And Fitbit — whose supervoting shares were due to expire after 12 years — suffered a stock price collapse almost immediately after its IPO and soon sold itself to Google.

The best hope for reducing the tensions between Silicon Valley's founders and the activists is a shared belief in the importance of reversing the decline in stock prices that has hit the sector over the past year. Much of the compensation paid to workers at the biggest tech companies comes in the form of stock. Protecting their companies' ability to compete for talent gives founders strong reasons to focus on the share price.

Mark Zuckerberg appeared to experience a change of heart after the rout in Meta's shares last month, announcing plans to cut 13 per cent of his workforce. The shares have since rebounded nearly 30 per cent, though they are still 70 per cent below last year's peak and many shareholders want more drastic action.

Chris Hohn, head of TCI, summed up the mood on Wall Street, declaring about Alphabet: "It's in no one's interest if the company becomes so fat and unhealthy. The argument is going to be true for all shareholders, all board members, all management." Perhaps, after all the divisive rhetoric that has coloured this debate from both sides, it's time for a new meeting of minds.

richard.waters@ft.com

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Property

Adler inflated its profit, says watchdog

BaFin finds Luxembourg business was incorrectly consolidated into results

OLAF STORBECK — FRANKFURT

Adler inflated its balance sheet by €3.9bn and its earnings by €543mn in 2019, according to Germany's financial regulator, which could have allowed the struggling real estate group to report a profit for the year.

BaFin yesterday said Adler incorrectly consolidated Luxembourg-based peer ADO Properties despite controlling just a third of voting rights, which the regulator argued was too low to guarantee control over the company.

By consolidating ADO Properties' €4.4bn in assets, Adler inflated its balance sheet by a net €3.9bn, according to BaFin. Adler's total reported assets in 2019, with ADO included, were €10.7bn.

As a consequence, Adler's reported net profit in 2019 was inflated by €543mn, BaFin said. The group reported a net profit of €299mn for the year, implying that without the boost from ADO Properties it would have made a €244mn loss.

Adler, which owns 26,000 flats in Germany and has come under sustained pressure from short sellers, does not agree with the regulator's assessment and is appealing against the decision.

"Adler and BaFin have different opinions on this matter, which are now being clarified by taking legal action," the company said in a statement, adding it was in "good and constructive dialogue with BaFin despite opposing positions".

It is the second time this year that BaFin has flagged mistakes in the group's 2019 accounts. In August, the watchdog said the sale of a property project in Düsseldorf was booked at about double its fair valuation, inflating Adler's accounts by up to €233mn.

The case is the first test of BaFin's new competencies to probe listed companies' accounts. Powers were expanded after the collapse of fraudulent German payments group Wirecard in 2020.

Thorsten Pötzsch, head of BaFin's new accounting division, told the Financial Times in August that the watchdog would operate a zero-tolerance policy, adding that "the risk of getting caught has never been as high as it is today".

The new findings deepen Adler's accounting woes as it struggles to find a new auditor after KPMG refused to sign off on its 2021 results and dropped the company as a client earlier this year.

Adler was plunged into crisis after short selling firm Viceroy Research in October 2021 accused it of widespread fraud, inappropriate related-party transactions and accounting manipulations. Adler denied any wrongdoing.

The Frankfurt-listed shares of its Luxembourg-based holding company have plunged 85 per cent over the past 12 months even as it has divested large chunks of its portfolio to lower its debt.

BaFin yesterday also said Adler's 2019 annual report, which was signed off by German audit group Ebner Stolz, played down the risks arising from the lack of control over ADO, in particular that indebtedness could be much higher.

"Without the full consolidation, the loan-to-value ratio would have risen significantly to about 70 per cent," BaFin said in a statement. The reported number stood at just 51.4 per cent.

BaFin also rebuked Adler for not keeping records about potential related-party transactions. Its probe continues.

Travel & leisure

Gaming group Embracer cuts outlook and eyes spin-offs

ANNA GROSS — BARCELONA

Shares in Embracer Group fell more than 14 per cent yesterday after the games company cut its earnings forecast for the year and launched a review of its business that could see it spin off some of its companies.

The Swedish group, which has become the biggest gaming company in Europe after a four-year buying spree, warned that the economic backdrop had turned "darker in recent months".

Embracer said it was launching a special review of the business to navigate the new market conditions.

This could result in "spin-offs . . . into separate publicly listed companies . . . if that is deemed to be the best for its employees, create higher shareholder value and improve our strategic flexibility".

The move comes just three months after the prolific dealmaker announced six new acquisitions and posted a rise in first-quarter sales and profits despite a scarcity of new game releases.

"The world has changed for the worse in many areas, becoming darker in recent months," chief executive Lars Wingefors said in a statement accompanying the group's half-year results. He said the increased cost of capital would have an impact on the business.

"Current and future investments, both organic and inorganic, [will have] to have a higher minimum hurdle with a

> 'The world has changed for the worse in many areas, becoming darker in recent months'

safety margin to justify the capital allocation," he added.

Embracer cut its forecast for earnings before interest and tax for this financial year from SKr9.2bn-SKr11.3bn to SKr8bn-SKr10bn ($758mn-$948mn), though it left its guidance for 2024 unchanged.

The company's share price fell nearly 20 per cent yesterday to SKr45.54.

A four-year buying spree transformed Embracer from a small and obscure PC games developer into the largest gaming company in Europe by market capitalisation, valued at SKr72bn.

In June, Saudi Arabia's sovereign wealth fund spent $1bn on a stake in Embracer, in a move the group said would help it set up a regional hub in the country so it could expand into the Middle East and north Africa.

Embracer has 132 gaming studios, employing 15,700 employees across 40 countries.

Most of these acquisitions were made at a time of low interest rates, when the gaming industry was awash with deals as companies sought to acquire studios with popular games.

But soaring inflation and rising interest rates have slowed dealmaking across the sector since the start of the year, when Microsoft made its blockbuster acquisition of Activision Blizzard in the US.

Embracer's more cautious strategy comes as the group posted a mixed set of results yesterday.

The group reported a 190 per cent increase in revenue in the second quarter from July to September, to SKr9.6bn, above consensus estimates of SKr8.9bn and driven in large part by previous acquisitions.

Adjusted ebit increased 115 per cent to SKr2.1bn, but came in below analysts' estimates of SKr2.4bn.

Automobiles. Demand shock

US used car dealer's lot is not a happy one

Rate rises and better supply of new vehicles lead to sharp deceleration in price gains

CLAIRE BUSHEY — CHICAGO

Later this month, Berman Auto Group will host what has become a rare occurrence at a car dealership in the past two years: a sales event.

The company in April bought about 150 vehicles when it opened another site in metropolitan Chicago, pegging the prices to a market benchmark that had skyrocketed since 2020. Vice-president Ross Berman then watched helplessly when used car prices began to fall, eating into the dealer's profit margins for the vehicles he had not yet sold.

"They're a sign to me of how much has changed over the past few months," Berman said. For Black Friday, the shopping bonanza after the Thanksgiving holiday, he is offering zero per cent financing. "We want to sell these cars."

Rising used car prices helped drive the worst US inflation in a generation. Government statistics show prices are 49 per cent higher than in June 2020 early in the coronavirus pandemic.

While prices are still high by historical standards, the gains are sharply decelerating. In October, they rose 2 per cent year on year, the US Bureau of Labor Statistics reported last week, down from an annual rate of more than 40 per cent in early 2022. At the online marketplace Cars.com, the median price for a used vehicle in October decreased more than 3 per cent from a year earlier to $23,499.

The decrease has ramifications for manufacturers, dealers, lenders, shoppers and potentially the wider economy as inflation shows signs of cooling off.

The price rise of the past two years was fuelled by a scarcity of new cars and trucks, as a worldwide shortage of semiconductor chips limited the number of vehicles that carmakers could produce. The smaller supply of new vehicles forced more consumers to turn to the used market, including rental car companies hungry to replenish fleets they had shrunk during the shutdowns of the pandemic.

Now, an increased supply of new cars and trucks, plus rising interest rates as the Federal Reserve fights inflation, are causing demand for used cars to ebb. Dealers are cutting prices to keep car payments attractive to shoppers as higher borrowing costs make financing less affordable.

"The Federal Reserve made a decision to raise interest rates, and for better or worse, it's doing its job," Berman said. "It's basically slowing consumer demand. The same vehicle at the same price today is going to cost the customer a lot more. That, by default, lowers demand on those cars."

Prices rose 2% year on year in October, down from an annual rate of more than 40% early in the year
Matthew Hatcher/Bloomberg

The declining prices of used cars are felt by family-owned dealers and large chains alike. Two publicly traded dealers, Carvana and CarMax, both outperformed the S&P 500 stock index in 2020 and 2021, but this year CarMax's stock price has dropped 44 per cent while Carvana's plummeted 96 per cent.

S&P Global recently changed its outlook on Carvana to negative because of weakening profit margins, cash flows and liquidity. More than half the dealer's gross profit per unit comes from selling loans and other products, but Carvana is poised to lose a share of this business.

"With rising interest rates, it is more difficult for Carvana to compete with the large banks that can keep loan rates low," said S&P analysts David Binns and Nishit Madlani.

The company would need to seek fresh capital to maintain liquidity in 2024, they added.

Falling used vehicle prices traditionally had been "the canary in the coal mine" for new cars and trucks, said Steve Brown, an analyst at Fitch Ratings. They signalled declining demand for new vehicles, forcing price cuts and in turn lower production by manufacturers.

That pattern may no longer hold. US carmakers made, on average, about 11.2mn vehicles a year for the five years preceding the pandemic, said Kristin Dziczek, an automotive policy adviser at the Federal Reserve Bank of Chicago.

But the chip shortage curtailed production: They made just below 9mn a year in 2020 and 2021 and are forecast to produce less than 10mn this year. Because manufacturers have built fewer new vehicles in the past two years than consumers want to buy, falling used vehicle prices may not translate into lower prices for new cars and trucks.

> 'It is more difficult for Carvana to compete with the large banks'

Carmakers have also spent the past two years allocating scarce chips to the most expensive versions of their most profitable vehicles, essentially abandoning the low end of the market. Less affluent customers moved into the used vehicle market. Carmakers may be less inclined to cut prices even as supplies rebound "because the low-end buyer is out of the market", Brown said.

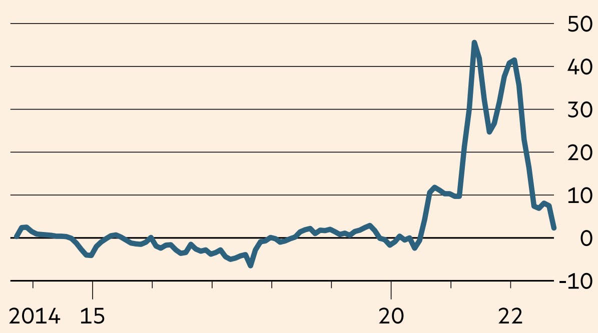
At wholesale auctions, buyers are no longer willing to pay what sellers are demanding, said Omair Sharif, president of Inflation Insights, a forecasting and analysis group. The US consumer price index for used cars fell 2.4 per cent from September to October.

With used vehicles making up 5 per cent of the basket of goods used to track inflation, October's decline in used vehicle prices subtracted more than a tenth off the core inflation rate, Sharif said.

"It's going to become an anchor and pull down on the core rate as we move forward." While everyday purchases such as groceries influence people's perception of inflation more, "even if you don't buy a used car every week, it still helps in terms of seeing that the data is coming down".

Rally slows

12-month change in CPI for US used cars and trucks (%)



Sources: US Bureau of Labor Statistics; St Louis Fed

Technology

Dell agrees to pay $1bn over VMware lawsuit

SUJEET INDAP AND ANTOINE GARA
NEW YORK

Dell Technologies, the software and laptop company controlled by Michael Dell and private equity group Silver Lake, has agreed to pay $1bn to settle a lawsuit over its acquisition of software company VMware, which would be one of the biggest shareholder awards in the Delaware Court of Chancery.

The case dates to 2018, when Dell's eponymous company re-entered public markets through a reverse merger. Previously owned by Dell and Silver Lake, Dell Technologies listed at an enterprise value of about $100bn.

The lawsuit stemmed from a dispute over "tracking stock" designed to represent ownership in VMware, a listed software company majority owned by Dell Technologies. To go public, Dell Technologies swapped its privately held shares and cash for the listed VMware tracking stock at an acquisition value of $24bn. Among the tracking stock shareholders to participate in the deal were big investors Elliott Management, Carl Icahn and BlackRock.

Shareholders who filed the lawsuit in early 2019 alleged Michael Dell, Silver Lake and other directors of Dell Technologies had sought to "crater the market value" of the tracking stock and had used "coercive, strong-arm tactics" to push the reverse merger through before it was approved by a majority of independent tracking stockholders.

Ned Weinberger of Labaton Sucharow, the law firm for the plaintiffs, said he believed the $1bn settlement, if approved by the court, "would represent one of the largest, if not the largest, cash recoveries for stockholders in the history of the Court of Chancery" of Delaware, the US state where most corporate disputes are litigated. "We are pleased to have reached what we believe to be a very fair and favourable resolution on the eve of trial," he added.

The settlement will be paid by Dell Technologies and its insurers, the company said in a filing.

Dell Technologies said an independent board committee approved the settlement. Silver Lake declined to comment. The shareholders also settled with investment bank Goldman Sachs, which shareholders had accused of "aiding and abetting" Dell and Silver Lake.

Goldman declined to comment.

Despite the cost of the $1bn payment, Michael Dell and Silver Lake have reaped tens of billions of dollars in profits from their investment, backed by debt. The pair first took Dell Technologies private in 2013 at a $25bn valuation. In 2015, Dell Technologies acquired software company EMC for $67bn.

EMC held a majority stake in VMware. Instead of paying cash to acquire VMware outright, Dell issued EMC shareholders the tracking stock that would become the disputed security in the litigation.

Industrials

German bellwethers offer opposing outlooks

PATRICIA NILSSON — FRANKFURT

Two German industrial conglomerates, Siemens and ThyssenKrupp, have given contrasting signals about the future, with the former predicting higher margins while ThyssenKrupp expects earnings to fall in the next year.

Siemens said yesterday that a record backlog of orders was expected to boost margins next year, helping the maker of trains and automation software buck the gloomy economic outlook.

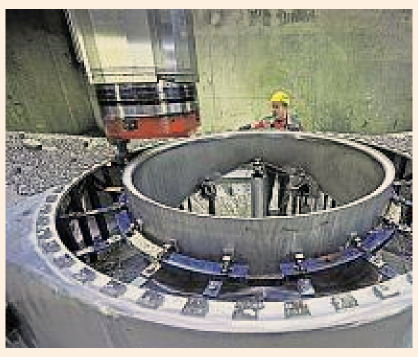
But ThyssenKrupp warned that rising interest rates, high energy costs and inflation would lead to a "significant" reduction in sales next year, while adjusted earnings before tax would "drop back to a figure in the mid to high three-digit million euro range" compared with the €2.1bn it posted for 2022.

"The momentum of our transformation process has been damped," said Martina Merz, chief executive.

Siemens and ThyssenKrupp are seen as bellwethers of the global economy, as their products cater to the construction industry, factory automation and infrastructure development.

The two groups together employ more than 400,000 people and both have done much to streamline and shrink their businesses in recent years.

ThyssenKrupp, which has specialisms including industrial machines and submarines, in 2020 was forced by shareholders to sell its lifts business for €17bn. Last year, it sold its carbon components and infrastructure businesses, as well as an Italian stainless steel plant.



Siemens believes it is set to defy the gloom and boost its margins

Siemens, which has spun off its health and energy units but still retains some shares, this year sold off a mail and parcel business and its stake in an automotive venture with France's Valeo.

Siemens' share price has dropped by nearly a fifth this year but was up nearly 7 per cent yesterday.

Sales in the year to September grew 8.2 per cent to €72bn. Net income was €4.4bn, more than a third lower than last year, which Siemens said was due to a non-cash impairment of €2.7bn in relation to its remaining stake in its energy business.

ThyssenKrupp said sales rose more than a fifth to €41bn in 2022 and the company proposed to pay a dividend of 15 cents per share, its first in four years.

See Lex

COMPANIES & MARKETS

QatarEnergy sets out greater goals in global arena for World Cup host

Gulf state's bet on LNG has paid off and it plans to boost fossil fuel production at projects abroad

TOM WILSON AND ANDREW ENGLAND
LONDON

Saad al-Kaabi, Qatar's energy minister and chief executive of its national oil and gas group, has criss-crossed the globe in recent weeks, from Namibia to Guyana, Suriname, the US and Egypt.

The energy crisis triggered by Russia's invasion of Ukraine has led to soaring demand for Qatari liquefied natural gas, supercharging state revenues and cementing QatarEnergy's place as one of the world's top resource companies.

Qatar's oil and gas revenues surged by two-thirds in the first half of the year to $32bn, according to state media — a windfall that underlines the riches of the tiny Gulf state as it prepares to host the football World Cup.

Since the country of 3mn people was awarded the tournament in 2010 it has poured at least $200bn into infrastructure, including $6.5bn on stadiums and facilities, largely paid for with revenues from QatarEnergy's LNG exports.

But if chapter one and chapter two of the company's evolution focused on developing then maximising domestic gas production for export, "chapter three" will be about QatarEnergy's international expansion, Kaabi told the Financial Times.

"We're probably one of the largest blockholders today in exploration . . . and you'll see that we are going to do more," Kaabi said. "We are going to be very much in all the businesses that we've always been in, but in a much bigger role and much bigger size."

QatarEnergy has built a vast exploration portfolio over the past decade that includes stakes in projects in Angola, Brazil, Canada, Egypt, Guyana, Namibia, South Africa, Suriname and the US Gulf of Mexico.

The company aims to raise its production outside Qatar from 45,000 barrels of oil equivalent a day to 500,000 boe/d by 2030. Domestically, Qatar produces about 5mn boe/d, including some oil and a vast amount of LNG.

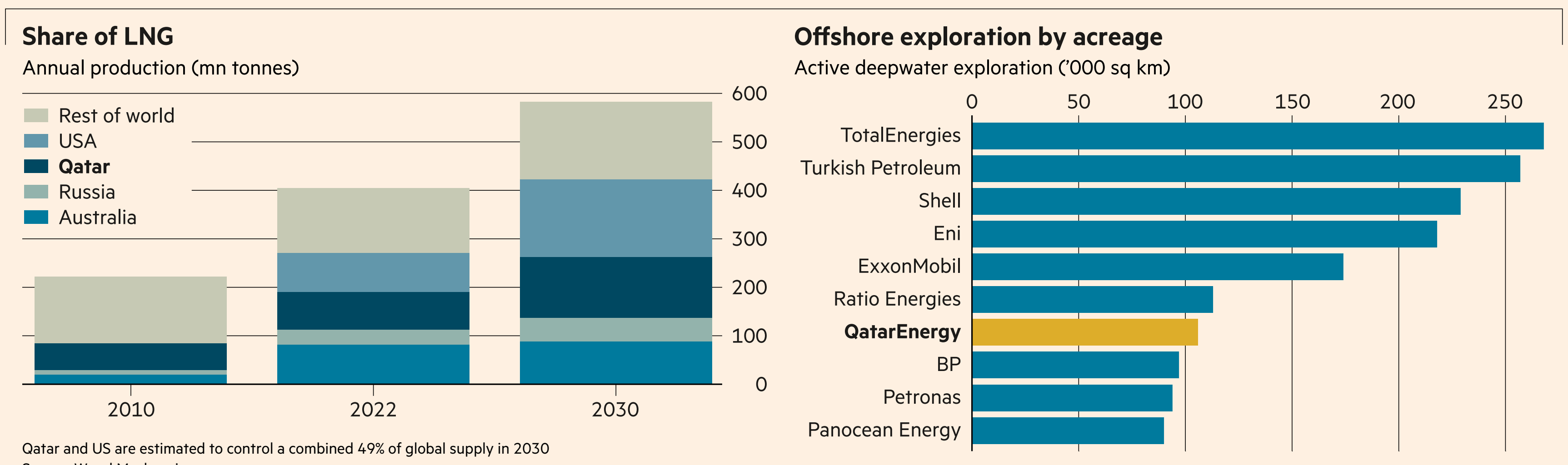
The international expansion is unusual for a state-owned energy company in the Gulf. While Saudi Aramco and the Abu Dhabi National Oil Company have invested in energy sector projects abroad, neither has pursued international upstream opportunities, focusing instead on domestic production.

Boosting domestic LNG output remained a priority, but Kaabi said crude from new finds in countries such as Namibia could provide "versatility" and a source of production outside gas-focused Qatar. "We want to have a little bit of a mix of oil and gas in our portfolio," he said. Such talk is one reason analysts say QatarEnergy is starting to look less like a state-owned gas producer and more like one of its international supermajor partners.

"Monetising Qatar's gas is always going to be the number one priority, and rightly so, but you can just see some of the tentacles extending," said Frank Harris of Wood Mackenzie, the energy consultancy. "In LNG they are starting to look a bit more like Shell or a Total than a national oil company."

Founded in 1974 as Qatar Petroleum, the state-owned gas giant has often proved willing to take risks. Qatar was highly indebted and edging towards bankruptcy in the early 1990s when its leaders bet on developing LNG for export from Qatar's North Field, the largest gas reserve in the world.

At the time, Gulf leaders traditionally favoured oil over gas, and Qatar's plans were considered a gamble. BP quit the project in 1992, saying it did not think it would produce sufficient returns.



Qatar and US are estimated to control a combined 49% of global supply in 2030
Source: Wood Mackenzie

Saad al-Kaabi, Qatar's energy minister and chief executive of its national oil and gas group, says the Gulf state's LNG is 'always going to be the number one priority'
Hamad I Mohammed/Reuters

Five years later, Qatar inaugurated its first LNG export facility, a partnership with ExxonMobil, TotalEnergies, Mitsui and Marubeni, and in 2006 overtook Indonesia as the biggest LNG exporter.

For the next decade, Qatar put a moratorium on new developments in the North Field while it completed existing projects. At the same time it focused on becoming one of the world's most reliable providers of energy, almost never missing an LNG shipment to a customer.

"They have been extremely, extremely efficient," said Leo Kabouche, an LNG analyst at Energy Aspects, a consultancy.

Doha took another big bet in 2017, lifting the moratorium and announcing expansion plans just as some world leaders were talking about how to leave fossil fuels behind.

The move triggered a beauty parade in which big international oil companies competed to partner in the expansion. As part of that process, energy majors including Shell and Total invited QatarEnergy to join their projects in other parts of the world, helping the company expand internationally.

"In the beginning, when everybody wanted to showcase what they can help us with, we actually told them that we would measure people by how much they support QatarEnergy in that area," Kaabi said.

Over time QatarEnergy has become a useful partner to those foreign companies, Kaabi says, not least because of the Gulf state's diplomatic influence.

"In my view we've given a lot of these companies a lot of boost by us being there because of our government-to-government relationships," he said.

The model appears to have worked for all parties. QatarEnergy has built a global portfolio of exploration partnerships and Shell, Exxon, ConocoPhilips, Total and Eni have signed deals in the North Field that will help boost Qatar's domestic LNG production capacity from 77mn tonnes a year to 126mn by 2027. A partnership with Exxon in the US called Golden Pass will provide a further 16mn tonnes of LNG a year from 2025.

The company is diversifying, investing in petrochemical production and solar energy in Qatar. But unlike its publicly listed partners, it has not set net zero emissions targets for its operations.

Kaabi, who said there was no plan to list QatarEnergy "in the foreseeable future", argues that natural gas, which emits significant carbon when burnt but less than oil and coal, should be central to the world's energy transition.

> 'I agree with going green, but I always say that gas is not a transition fuel, it is a destination fuel'

"I agree with going green, but I always say gas is not a transition fuel, it is a destination fuel," he said. "If you look at the base load of electricity in the world, it's either going to be gas, or nuclear for the ones that accept to have nuclear and can afford it. [The] rest is going to be some fuel oils and a lot of renewables."

Among its most prospective international opportunities are two blocks offshore Namibia, where the company's respective partners, Shell and Total, have found oil in the past 12 months.

For a company like Shell, under pressure from activists and some investors to cut oil production, advancing a new project in a country with no history of oil production will be contentious. Kaabi said QatarEnergy would proceed regardless. "If it's commercial and we believe in it and they do not want to develop, we will look for other partners to develop it," Kaabi said.

So far QatarEnergy has tended to rely on partners to operate its international projects. That could become more challenging as pressure intensifies on listed oil and gas companies to cease activity, particularly in new frontiers.

"I don't think we'll run out of companies that will want to be the operator," Kaabi said, "but eventually at some point, I think we need to be an operator."

Technology

OnlyFans moves into ecommerce in battle for influencers

ARJUN NEIL ALIM AND CRISTINA CRIDDLE
LONDON

Content creators on OnlyFans will be able to sell merchandise directly to their viewers, as the platform becomes the latest social network to jump into ecommerce amid fierce competition for influencers.

The company, which allows a range of creators from fitness instructors to sex workers to sell content directly to fans, announced a partnership with ecommerce platform Spring, enabling users to link their pages to an online store to sell personalised merchandise.

Tech groups including Meta, YouTube and TikTok have all expanded into the so-called social commerce market over the past few years, where consumers purchase products on social networks, as a way to drive additional revenues and enable influencers to monetise their following.

OnlyFans allows creators including adult content stars, musicians and artists to sell videos, images and messages directly to subscribers, who pay a fee of between $5 and $50 a month, from which the platform takes a 20 per cent commission.

"Our creator community was looking for merchandise options to be able to share another side of their business with fans," said chief executive Ami Gan.

OnlyFans counts 220mn overall users, of whom more than 3mn have created content this year. In September, the British company reported revenues for 2021 of $932mn, with pre-tax profits of $433mn.

> 'Our community was looking for options to be able to share another side of their business with fans'

OnlyFans has announced other tools for creators to manage their business, including the Statistics Page, which offers creators a detailed breakdown of their viewers as well as engagement statistics.

Social media platforms have been stepping up their push to attract online talent, in the hope of boosting broader user numbers and engagement.

Earlier this week, the Financial Times revealed that YouTube was introducing shopping features to the world's biggest video site.

It is also testing new commission schemes for influencers who sell products through links in videos, in a move to hold on to its content creators against fierce competition from rivals.

OnlyFans is unique as a social media network because its business model drives revenues from user-generated porn, which other platforms such as Meta and TikTok have banned.

Spring was acquired last week by creator economy platform Amaze Software. Spring has more than 5.5mn online shops set up by creators, according to Amaze's chief executive Aaron Day.

It comes a day after Linktree, a technology company that is used by more than 24mn people to curate a collection of links to display on social media profiles to access other content, added payment options to its service.

Content creators will now be able to charge access to certain links, so fans can pay for additional content which could include bespoke videos, messaging groups and other documents.

The Australian company now allows users to charge up to $150 for content, but Linktree does not permit charging for adult content.

Retail

Burberry to emphasise 'Britishness' as it targets £5bn of sales

JONATHAN ELEY AND ARJUN NEIL ALIM
LONDON

Burberry's new chief executive plans a return to the "Britishness" of the 166-year-old luxury goods brand and is targeting annual sales of £5bn over the long term by selling more leather goods and accessories.

Jonathan Akeroyd, the former boss of Versace, took over from Marco Gobbetti this year and said Burberry's revenue should hit £4bn a year within three to five years, up from £2.8bn in the year to April 2. "But I really believe we can go further than this," he told investors, "£5bn of annual sales will drive significant operating leverage, increasing our operating margin above 20 per cent."

Burberry's profit margins have long been lower than those of other luxury goods peers, partly because of its different product mix, and improving them has been a priority for successive chief executives.

A key plank of Akeroyd's strategy would be to emphasise Burberry's "Britishness", he said. "We are the only luxury brand of our scale that can claim this. It's unique and helps us stand out in a crowded market."

He has hired a British designer, Daniel Lee, who will present his first collection in February. Lee surprised the industry with his abrupt departure from Bottega Veneta a year ago, but Akeroyd heaped praise on his work so far and described him as "a unique talent".

Akeroyd pledged to build on Gobbetti's work to sell a larger volume of higher-margin leather goods, shoes and accessories, an area where Lee has a strong record. Sales of such items are targeted to increase by 50 per cent.

"Product matters the most and this is where we have [the] biggest opportunity," Akeroyd said, citing the need to expand its offering.

He also said the group would seek to sell more online and double sales per square foot at its stores, as well as sharpening its marketing campaigns.

Burberry is heading back to its roots in the hope of boosting margins

Citigroup analyst Thomas Chauvet said the latest plan had "a better balance in terms of product categories, channels and a stronger brand differentiation" than the one unveiled by Gobbetti almost four years ago. He added that if achieved, it would result in a 30 per cent increase in revenue in the year to March 2027 than currently expected, and a 15 per cent lift in profits.

Burberry shares closed up 2 per cent to more than £20, with the stock outperforming peers in the past few months.

Sales rose 5 per cent at constant exchange rates to £1.35bn for the six months to October 1 and it posted adjusted operating profit of £238mn, up 6 per cent, slightly ahead of expectations. Reported increases were higher because of the stronger dollar. The headline numbers masked significant changes in who was spending and where. It emerged that more Burberry customers were heading to Paris and Milan rather than London.

"Tourists were 40 per cent of our [European] business in the second quarter . . . but the big tourist arrivals into that area are now from the US and the Middle East," said chief financial officer Julie Brown.

"More tourists are going to Paris, Milan and continental Europe. Tax-free shopping was a real incentive for the luxury shopper to come to the UK."

In October, the UK government abandoned plans to reintroduce tax-free shopping for overseas visitors.

Sales in the Americas were sluggish — down 3 per cent in the first half.

Legal Notices

IN THE MATTER OF JCI Labuan Limited
(Company No . LL06248)
(INCORPORATED UNDER THE LABUAN COMPANIES ACT 1990)

AND

IN THE MATTER OF SECTION 169(4) OF THE LABUAN FINANCIAL SERVICES AND SECURITIES ACT 2010

NOTICE OF SURRENDER OF LABUAN FACTORING LICENCE NO. LFA/FC/001

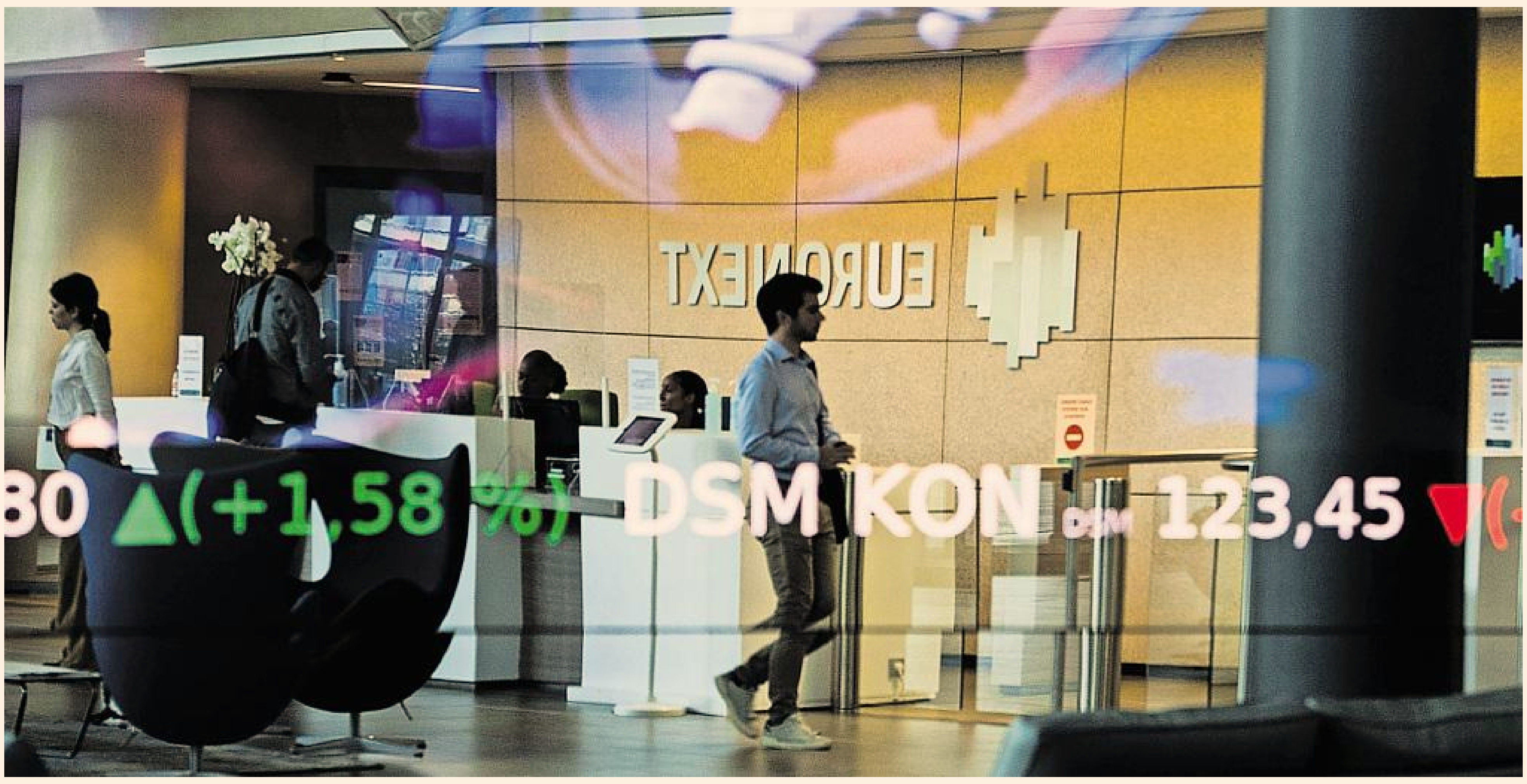
NOTICE IS HEREBY GIVEN that JCI Labuan Limited intends to surrender its Labuan Factoring Licence No. LFA/FC/001 issued by the Labuan Financial Services Authority.

And that upon the effective date of the surrender of the licence, JCI Labuan Limited shall no longer carry on the Labuan factoring business activity.

Dated this 18th day of November 2022

Equities. Narrowing gap

France challenges UK for title of Europe's biggest stock market



Capital projects: the market value of all the companies listed in Paris has soared from $1.8tn at the start of 2016 to $2.83tn
Nathan Laine/Bloomberg

Fall in sterling since Brexit and rising optimism over French shares have tilted the scale

CHRIS FLOOD — LONDON

Paris is challenging London's lead as the home to Europe's biggest stock market, eating away at Britain's position after Brexit as the continent's most important financial centre.

The market value of all the companies listed in the French capital has soared from $1.8tn at the start of 2016 to $2.83tn, closing in on the value of London shares at $2.89tn, according to Refinitiv.

"This gap between London and Paris in the domestic market is a lot smaller than it used to be or should be," said William Wright, founder of New Financial, a UK think-tank.

"It's the result of the poor performance of UK stocks, the poor pipeline and performance of UK new issues, and the terrible performance of sterling," he added. "It's clearly not great news for London — and Brexit is a big factor in all three."

The narrowing gap has worried UK policymakers eager to tout the benefits of leaving the trading bloc and reestablish London's post-Brexit appeal as Paris, Frankfurt and Amsterdam take slices of its daily activity.

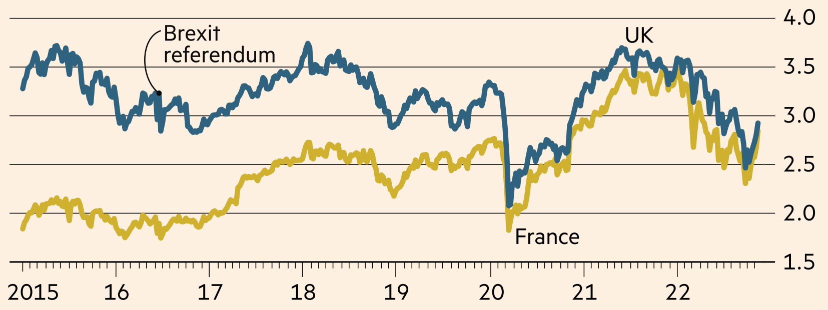
London has retained its status as the world's leading hub for foreign currency and derivatives trading, even though its share of both markets has slipped.

But the gap it traditionally enjoyed in equities over other European centres is evaporating since Britain left the Single Market.

More than €6bn of European-listed shares typically traded in the City left on the first trading day, allowing Amsterdam to claim the crown as the most active equity market.

The French market has closed the gap on the UK since the Brexit vote

Stock market capitalisation (on Datastream Total Market indices, $tn)



Source: Refinitiv

The value of shares on London bourses in dollar terms been pressured by a fall in the pound since 2016, the year of the Brexit referendum.

Sterling has dropped by almost a fifth against the dollar since January 2016 while the euro has only depreciated by about 4 per cent.

Sue Noffke, head of UK equities at Schroders, said: "Sterling has depreciated significantly since the Brexit vote, leading to a higher rate of mergers and acquisitions, with private equity investors and corporate buyers taking advantage of the UK's valuation discount to other stock markets."

High-profile departures resulting from takeovers include Arm, Shire, SABMiller, Sky, Cobham, Meggitt, Wm Morrison and the insurer RSA.

London trumps Paris by a wide margin when taking into account depository receipts — bank certificates that reflect ownership of shares in foreign companies, traditionally a large proportion of London's overall market value.

Including depository receipts, London's total market capitalisation stood at $6.2tn compared with $3.7tn for Paris, according to the London Stock Exchange.

To reestablish its traditional lead, in coming months the UK government aims to finalise proposals to reform the City of London.

Among the changes that it plans are tweaks to the listings regime to make it more attractive for companies to list.

However, the UK has attracted 60 new listings that have raised more than $100mn over the past three years, for a total value of $26bn, compared with France's 19 listings that have drawn in $8bn, according to Schroders.

"Growth in the number of new listings provides a better reflection of the health of a stock market," said Andrew Lapthorne, a quantitative strategist at Société Générale.

Nevertheless, the competition from Paris is set to intensify as France is ranked as the favourite European stock market by fund managers.

> 'France has enjoyed better tailwinds, with luxury goods performing strongly and greater exposure to industrials and tech'

A net 30 per cent of fund managers said in November that they intended to "overweight" French equities over the next 12 months, according to a Bank of America survey of 161 investment managers with combined assets of $313bn.

The Liz Truss government's ill-received "mini" Budget badly damaged confidence among fund managers, with those intending to overweight the UK dropping sharply from a net 37 per cent in September to zero in November.

Andreas Bruckner, a BofA strategist, said fund managers had reduced their overweight positioning over the past three months in European energy stocks — a key sector in the UK equity market — and moved over the same period to a net "overweight" in industrial companies, a sector that carries more influence in the French stock market.

Ben Ritchie, head of UK and European equities at Abrdn, the Edinburgh-based asset manager, said differences in the structure of the two stock markets had contributed to the shifting fortunes of the UK and France.

"Performance has been challenging for some of the UK's most important sectors including the banks, pharmaceuticals, natural resources and even oil companies," said Ritchie. "France has enjoyed better tailwinds, with luxury goods companies performing strongly and greater exposure to industrial companies and tech plays."

He added: "Shareholders in UK companies are overly concerned about dividend payouts, which are regarded as sacred, but this has led to under-investment whereas there has been a sea-change in French capitalism which is now much more focused on growth."

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ft.com/crypto

Commodities

Saudi Aramco leads Riyadh's $30bn South Korea push

CHRISTIAN DAVIES — SEOUL
SAMER AL-ATRUSH — DUBAI

Saudi Aramco has announced a $7bn investment in a petrochemical factory in South Korea as part of a $30bn package of agreements between Riyadh and Seoul as Crown Prince Mohammed bin Salman forges closer partnerships in Asia.

The deals, including the investment by the world's biggest oil producer, were announced yesterday during the first day of a visit to Seoul by Prince Mohammed.

Saudi Arabia's day-to-day ruler is on a tour of east Asia that will also include Japan and Thailand.

Chinese president Xi Jinping is next month expected to visit Saudi Arabia.

Saudi Arabia's investment minister told domestic media that the total value of the deals announced in Seoul was $30bn.

South Korean state energy monopoly Kepco and four other Korean companies also signed a memorandum of understanding with Saudi Arabia's Public Investment Fund for a $6.5bn hydrogen and ammonia plant in the Gulf kingdom.

Saudi Arabia has been betting on hydrogen despite a limited market for the energy source, with a plant developed in partnership with US chemicals company Air Products expected to go online in 2026.

> 'He would like drastically to strengthen co-operation in defence, infrastructure and construction'

The Korea Times reported that the other plant would be built in Yanbu on the Red Sea and that production would start in 2029.

Korean heavy industry heavyweight Hyundai Rotem also signed a memorandum of understanding with the Saudi government to co-operate on railway infrastructure for Prince Mohammed's flagship Neom mega-project, a carbon-free city built in a 170km line through the Saudi desert.

South Korean president Yoon Suk-yeol welcomed the investments, describing Saudi Arabia as a key partner for the East Asian country's economic and energy security.

"In particular, he said he would like drastically to strengthen co-operation with South Korea in the areas of the defence industry, infrastructure and construction," said a South Korean presidential representative.

South Korea, a close ally of the US, imports almost 93 per cent of its energy and natural resources, according to government figures, with approximately 60 per cent of its oil imports sourced from the Middle East.

On a visit to Seoul this month, Saudi investment minister, Khalid al-Falih, urged South Korean start-ups to use his country as a "platform" to enter the global market, citing the popularity in Saudi Arabia of Korean culture, fashion and cosmetics.

Equities

Australian exchange apologises after scrapping botched blockchain upgrade

NIC FILDES — SYDNEY

Australia's stock exchange has apologised for abandoning a years-long plan to upgrade its clearing and settlement system to a modern blockchain-based platform after a series of delays.

The Australian Securities Exchange's move to drop the upgrade of its clearing housing system calls time on a project that critics say has cost the country its head-start in developing a more efficient trading system.

Damian Roche, chair of ASX, apologised for the disruption caused by the botched upgrade.

"We have concluded that the path we were on will not meet ASX's and the market's high standards. There are significant technology, governance and delivery challenges that must be addressed," he said.

Australian regulators had granted ASX control of the project to foster more efficient trading.

In contrast, the EU has launched a technology pilot to trial distributed ledger technology for share trading and the UK Treasury is set to do the same.

The project, launched seven years ago, has been beset by repeated delays of the system's implementation. ASX will book a A$250mn ($168mn) charge after admitting it needed to start again.

Philip Lowe, the governor of Australia's central bank, said the banking industry had incurred significant costs and that any writedowns would need to be fully borne by ASX.

"The announcement by ASX after many years of investment by both ASX and industry is very disappointing. ASX needs to prioritise developing a new plan to deliver safe and reliable clearing and settlement infrastructure," Lowe said.

The Australian exchange said the upgrade had significant challenges

Banks and financial services companies are estimated to have spent up to A$150mn preparing for the upgrade.

The decision to abandon the upgrade followed a review by Accenture that showed major deficiencies in the design of the software, developed by a company in which ASX has a stake, and questioned its ability to ever launch.

David Farrell, head of trading platform FinClear, laid the blame on ASX and regulators who "blindly" accepted the upgrade would deliver on its promise.

"It is not the technology that's the problem. It is the implementation," he said, noting that his company has developed trading platforms using the same system ASX has aborted.

Farrell said the replacement for ASX's upgrade could be obsolete by the time it arrives in two to three years.

"We're now falling behind the rest of the world," he said.

ASX shares closed flat yesterday but have fallen almost a quarter this year.

Crypto

Scaramucci's SkyBridge bought $10mn of FTX token in return for investment

ORTENCA ALIAJ — NEW YORK
JOSHUA OLIVER — LONDON

FTX founder Sam Bankman-Fried told Anthony Scaramucci to buy digital tokens created by his cryptocurrency exchange as a condition for him taking a 30 per cent stake in SkyBridge Capital, in an early sign he was trying to support the coin's price, according to three people with knowledge of the agreement.

The Scaramucci-led fund manager SkyBridge bought $10mn worth of FTT, the token issued by FTX, two of the people said.

The bankruptcy of FTX after a liquidity crisis in the past week has rocked the cryptocurrency industry, sparking investigations by global regulators and leaving behind as many as 1mn creditors.

Until recently Bankman-Fried was viewed as a billionaire backer of the crypto industry. He also came to the rescue of SkyBridge, which has over the past two years invested heavily in crypto under Scaramucci's leadership.

The deal Bankman-Fried and Scaramucci announced in September involved FTX Ventures paying $45mn for a 30 per cent stake in SkyBridge.

Under the terms of the agreement, SkyBridge was obliged to spend $40mn buying cryptocurrencies. Scaramucci at the time said the transaction was proof that SkyBridge had a long-term future.

"If you have $50mn in liquid assets on your balance sheet, people don't think you're going out of business," he told reporters in September at his Salt financial conference in New York.

> 'If you have $50mn in liquid assets, people don't think you're going out of business'

Scaramucci is looking for ways to buy back FTX's stake in his firm, even as Bankman-Fried's crypto empire goes through bankruptcy proceedings, he recently told CNBC.

Scaramucci and SkyBridge declined to comment on Wednesday.

Bankman-Fried did not return a request for comment.

FTT assumed a crucial role in the financial crisis that engulfed FTX after a document leaked to crypto publication CoinDesk showed that Alameda Research, a sister trading firm also owned by Bankman-Fried, held large amounts of the token on its balance sheet, raising concerns about its financial health.

Anxiety increased after Changpeng Zhao, the chief executive of rival crypto exchange Binance, this month said it would sell the roughly $600mn in FTT it had received as part of its exit from an early equity investment in FTX.

Scaramucci speculated during an interview at the Bloomberg New Economy Forum on Tuesday that Binance's decision to sell FTT was prompted by negative comments Bankman-Fried had made about Zhao during a recent trip to the Middle East.

The FTT token is not widely traded. Just 10 crypto wallets control 94 per cent of the coins' supply, according to CoinMarketCap. The token now trades below $2 compared with more than $26 at the beginning of November.

Scaramucci had a brief stint as the White House communications director under former president Donald Trump.

The day in the markets

What you need to know

- **Global stocks fall after hawkish comments from senior Fed official**
- **Bullard says interest rate rises have only had a 'limited effect' on inflation**
- **FTSE 100 and sterling slide as UK chancellor acknowledges recession**

Global stocks slid yesterday as investors assessed hawkish commentary from a senior US central banker and reacted to a gloomy set of forecasts for the UK.

Wall Street's S&P 500 fell 0.7 per cent while the tech-heavy Nasdaq Composite shed 0.6 per cent.

The moves came after James Bullard, president of the St Louis branch of the Federal Reserve, said that previous interest rate rises had produced "only a limited effect on observed inflation" and that the central bank's main policy rate could increase to between at least 5 and 5.25 per cent — above the level at present priced by markets.

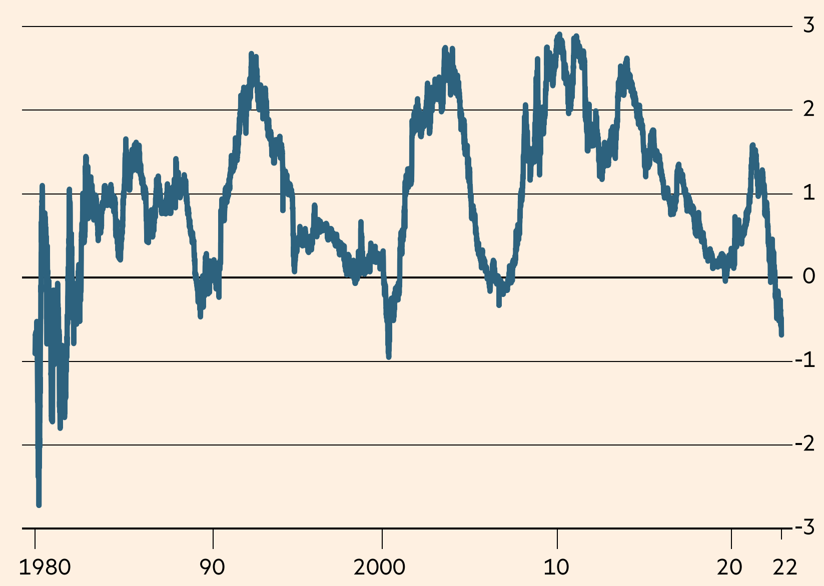
Investors have assigned a roughly 90 per cent probability of the US central bank raising rates by 0.5 percentage points when it meets in December, potentially ending a run of four consecutive 0.75 percentage point rises.

In US government bond markets, the yield on the two-year Treasury note rose 11 basis points to 4.48 per cent while the yield on the benchmark 10-year note added 8bp to 3.77 per cent as prices for the benchmark security fell.

The gap between the two yields reached minus 0.71 percentage points, meaning the so-called Treasury yield curve inversion has reached its widest level since 2000. Previous yield curve inversions have preceded US recessions.

So-called yield curve inversions tend to precede recessions

Spread between the yields on 10-year and two-year Treasury notes



Source: Refinitiv

London's FTSE 100 was 0.1 per cent lower after UK chancellor Jeremy Hunt announced a £55bn "consolidation" of the country's finances and acknowledged that the economy was in recession.

UK output will return to pre-pandemic levels at the end of 2024, the Office for Budget Responsibility has said, more than two years later than the fiscal watchdog estimated in March.

Unemployment will rise by 505,000 from 3.5 per cent to peak at 4.9 per cent in the third quarter of 2024.

Sterling was trading 0.9 per cent lower against the dollar at $1.1810 immediately after Hunt's statement to parliament, extending a decline earlier in the day.

Gilts sold off across the board. The 10-year yield was 7bp higher on the day and the two-year yield rose 13bp to 3.11 per cent.

The pan-regional Stoxx Europe 600 index fell 0.4 per cent and Frankfurt's Xetra Dax rose 0.2 per cent.

Asian equities fell, adding to losses in the previous session. Hong Kong's Hang Seng index was down 1.2 per cent, the CSI 300 index of Shanghai and Shenzhen stocks slipped 0.4 per cent and Seoul's Kospi fell 1.4 per cent. Tokyo's Topix gained 0.2 per cent. **George Steer**

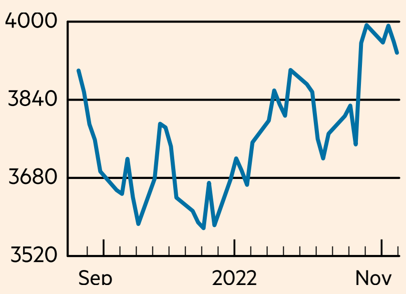
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	3936.37	1692.83	27930.57	7346.54	3115.43	107666.87
% change on day	-0.57	-0.32	-0.35	-0.06	-0.15	-2.34
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	106.966	1.033	140.580	1.178	7.128	5.463
% change on day	0.645	-0.768	0.886	-0.925	0.670	2.259
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	3.769	2.018	0.244	3.196	2.808	12.900
Basis point change on day	4.350	2.400	0.340	5.400	-2.800	29.600
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	403.35	89.89	81.56	1773.00	21.95	3931.40
% change on day	-0.81	-3.20	-4.05	0.09	0.05	-1.95

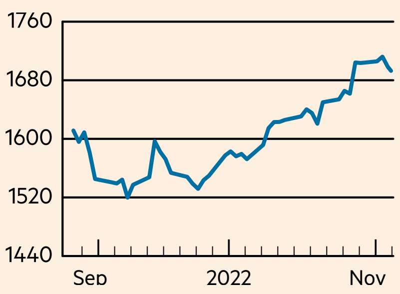
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

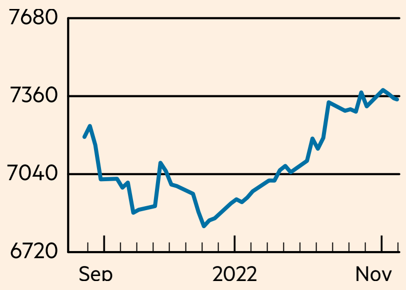
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Bath & Body Works	21.77	Siemens	6.64	Centrica	5.43
	Cisco Systems	3.77	Talanx	2.59	Lloyds Banking	2.99
	Centene	3.29	Renault	2.23	Imperial Brands	2.73
	UnitedHealth Group	2.76	Erste Bank	1.77	Natwest	2.47
	Target	2.71	Rwe	1.38	Legal & General	2.26
Downs	Norwegian Cruise Line Holdings Ltd	-7.08	Bouygues	-6.53	Ocado	-8.62
	Pool	-5.77	Saipem	-5.84	Harbour Energy	-5.90
	Svb Fin	-5.64	Casino Guichard	-4.42	Hargreaves Lansdown	-4.80
	Laboratory	-5.54	Omv	-3.93	Halma	-4.34
	Iqvia Holdings	-5.37	Continental	-3.75	Antofagasta	-3.15

Prices taken at 17:00 GMT. Based on the constituents of the FTSE Eurofirst 300 Eurozone. All data provided by Morningstar unless otherwise noted.

Wall Street

Bath & Body Works, the personal care and beauty retailer, moved to the top of the S&P 500 index after raising its outlook and blowing past forecasts.

Third-quarter earnings of 40 cents per share surpassed Bank of America's 16 cents estimate, and management lifted its full-year guidance, forecasting EPS of between $3 and $3.20, up from a previous estimate of $2.70 to $3.

"Inflation continues to plague B&BW and its customer," said BofA, "but we view its mix of good/better/best product as compelling and think the addition of targeted promotions will perform well" during the holiday season.

Macy's jumped following more forecast-beating results, reporting EPS of 52 cents in the third quarter, more than double Wall Street's expectation.

Luxury goods continued to outperform at Bloomingdale's and Bluemercury, said Jeff Gennette, Macy's chief executive.

Photovoltaic cells provider **First Solar** rallied on securing an order to supply an additional 4.9GW of solar modules to clean energy group Intersect Power.

A ratings change by Credit Suisse left **Norwegian Cruise** near the bottom of the blue-chip benchmark.

The broker double-downgraded the cruise operator to "underperform" from "outperform" owing to its higher valuation against peers. *Ray Douglas*

Europe

German conglomerate **Siemens** rallied after posting record fiscal-year profits of €10.3bn for its industrial business unit.

Underpinning its 2022 performance was a 17 per cent rise in orders.

Berenberg was "mildly surprised to see such strong guidance" from Siemens, with comparable revenue expected to grow between 6 and 9 per cent in its fiscal 2023 year, comfortably ahead of the 3.6 per cent expected.

A €4 dividend was also raised to €4.25 per share.

A bullish trading update lifted Belgium's **Ion Beam Applications**, the pharma product developer.

All its business units were performing well and this momentum was "expected to persist for the remainder of the year and beyond", it said.

The update prompted KBC Securities to reiterate its "buy" rating for IAB, highlighting its "solid balance sheet" and news that rival Varian was withdrawing from producing proton therapy equipment — "a clear positive . . . given that Varian was IBA's biggest competitor" in this area.

French industrial group **Bouygues** sank on news that Colas, its transport construction unit, was replacing a 4 per cent target for operating margin in 2023 with an aim to just "increase" operating profit compared with 2022. *Ray Douglas*

London

British Gas owner **Centrica** leapt to the top of the FTSE 100 index following the UK chancellor's Autumn Statement, in which Jeremy Hunt clarified his much-anticipated changes to the windfall tax.

The existing "energy profits levy" on oil and gas groups would be increased from 25 per cent to 35 per cent and extended from four to six years.

Laith Khalaf, head of investment analysis at AJ Bell, said this extension to the tax was not "as bad as expected" — also prompting a rise in another power group, **SSE**.

Luxury fashion brand **Burberry** climbed after delivering double-digit like-for-like sales in the quarter, which was "a clear positive", said Citi, "particular with China broadly flat year on year".

Ilika, which develops solid-state battery technology, tumbled after warning that it expected to post underlying losses of £4.5mn for the six months ended October 31.

Berenberg put this down to a delay in ramping up sales of its smaller format battery cells while its larger format cells were expected to reach lithium-ion equivalence "only in late 2023" versus a previous forecast of early 2023.

The broker subsequently lowered its price target for Ilika while reiterating its faith in the group's "attractive" long-term prospects. *Ray Douglas*

Incrementalism lays investors open to ambush

Abby Joseph Cohen

Markets Insight

Recent trading sessions have brought sharp gains in equity prices and notable declines in bond yields. These large swings are very much in keeping with the volatility witnessed throughout 2022. But, importantly, they are in notable contrast to the "incrementalism" of much of the previous decade, which dominated investors' views and drove behaviour. Regardless of direction, many investors seem caught out yet again by the speed and vigour of market moves.

Expectations have dramatically shifted throughout the year in many countries. There have been wide gaps in economic and corporate performance, sharp changes in government policies and abrupt swings in the pricing of financial assets. Applying the usual metrics of volatility, such as standard deviation, is less interesting than a review of the underlying catalysts. The bottom line is this: widespread expectations this year that big changes might be afoot but would occur only gradually and smoothly were mistaken. The mathematical assumptions built into many models that changes would occur in small, regular increments were in error.

Incrementalism, both in government policymaking and portfolio management, had been fostered by several factors. For example, developed economies enjoyed decades of mild-mannered inflation and well-controlled interest rates. Monetary and fiscal policy adjustments were typically small and easily anticipated. Exceptions, such as in the financial crisis or early stages of the pandemic, were viewed as just exceptions.

Investors responded accordingly. Asset classes that performed well generally continued to do so, as did the investments within them; momentum was a powerful factor driving relative performance. Valuation tools became less helpful. In equity markets, investors gravitated towards the shares that had already outperformed and whose market capitalisations were therefore rising. Valuations became even more skewed.

This was enhanced by capitalisation-weighted index funds and ETFs. But the underlying fundamental conditions have clearly changed, and incrementalism is no longer the winning strategy.

Consider the implications of the current willingness of central bankers to make large and repeated adjustments in policy rates in response to inflation. This follows governments' earlier readiness to make dramatic fiscal policy changes in the face of the pandemic and in response to disruptions in aggregate demand and supply. The longer-term policy implications, on prices, trade uncertainties, income distribution and so on, are still not fully understood.

> Regardless of direction, many seem caught out yet again by the speed and vigour of market moves

Big changes in sovereign currencies, and failures in some digital currencies and platforms, have policy repercussions. Added to the mix is international anxiety over military action, threatened and real, in Europe and Asia.

Even so, asset managers, as recently as early 2022 assumed that they would be able to "time the market" because of their narrow focus on a few variables that were expected to stay within narrow bounds. Consensus forecasts were that interest rates would rise only modestly and gradually. Most fixed-income managers made only incremental cuts in their allocations and portfolio duration. Also, US equity managers assumed valuations would be only modestly and gradually impeded by rising rates, and there would be only a slight deceleration in the pace of earnings gains. This had implications not just for the overall asset class, but also the relative valuations of the fastest growing companies.

The 2022 declines in bond and share prices, the rise in the dollar and other adjustments occurred with a rapidity and ferocity that alarmed many market participants. Although the vigour of recent rallies is far more pleasant, it is nevertheless a reminder that moves can occur in big jumps. Indeed, economic history shows this is more common.

A divided US Congress offers little protection from volatility. The next increase in the federal debt ceiling is at risk. These periodic adjustments are a peculiar feature of US fiscal policy. Basically, Congress is asked to allow the Treasury to raise funds for activities that were previously approved and on which money has already been spent. Some Republican members have indicated that they plan to hold hostage key elements of approved Biden policies which address long-term underinvestment in infrastructure and climate resilience.

Investors may need to tighten their seat belts when Congress returns to Washington, especially if the conversation veers from policy needs to political gamesmanship.

Abby Joseph Cohen is professor of business at Columbia Business School

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

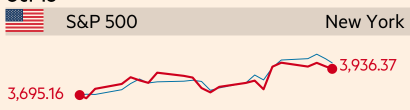
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.57%	-0.42%	-0.11%	-0.06%	-0.32%	-0.35%	-1.15%	-0.81%	-0.768%	-0.925%	0.886%	0.229%	-1.66%	0.09%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS

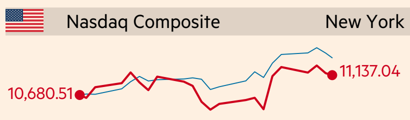
Oct 18 - - — Index — All World

S&P 500 New York



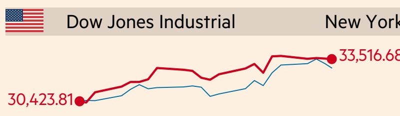
Day -0.57% Month 7.00% Year -16.06%

Nasdaq Composite New York



Day -0.42% Month 4.29% Year -30.07%

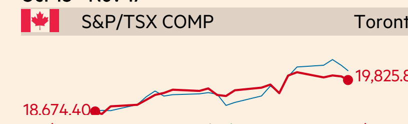
Dow Jones Industrial New York



Day -0.11% Month 11.04% Year -6.72%

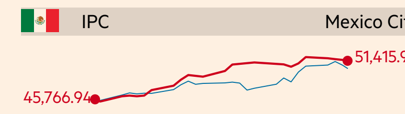
Oct 18 - Nov 17 — Index — All World

S&P/TSX COMP Toronto



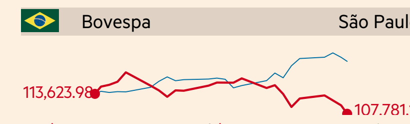
Day -0.79% Month 6.36% Year -8.53%

IPC Mexico City



Day -0.25% Month 11.23% Year 0.72%

Bovespa São Paulo

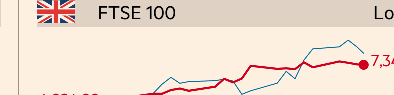


Day -2.34% Month -5.22% Year 4.60%

EUROPE

Oct 18 - Nov 17 — Index — All World

FTSE 100 London

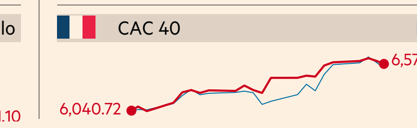


Day -0.06% Month 6.14% Year 0.74%

FTSE Eurofirst 300 Europe

Day -0.32% Month 7.24% Year -10.83%

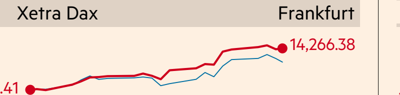
CAC 40 Paris



Day -0.47% Month 10.86% Year -8.06%

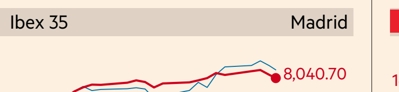
Oct 18 - Nov 17 — Index — All World

Xetra Dax Frankfurt



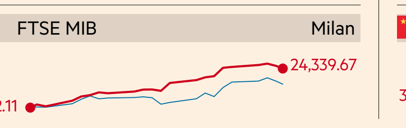
Day 0.23% Month 7.62% Year NaN%

Ibex 35 Madrid



Day -0.75% Month 8.92% Year -11.06%

FTSE MIB Milan

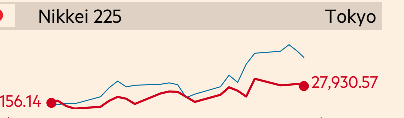


Day -0.78% Month 16.25% Year -12.49%

ASIA

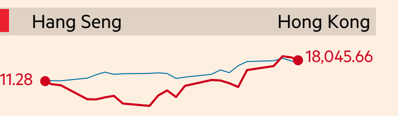
Oct 18 - Nov 17 — Index — All World

Nikkei 225 Tokyo



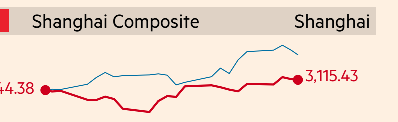
Day -0.35% Month 3.13% Year -6.27%

Hang Seng Hong Kong



Day -1.15% Month 8.91% Year -29.74%

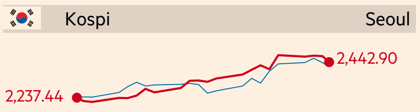
Shanghai Composite Shanghai



Day -0.15% Month 1.41% Year -11.54%

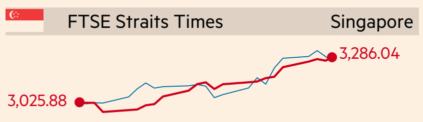
Oct 18 - Nov 17 — Index — All World

Kospi Seoul



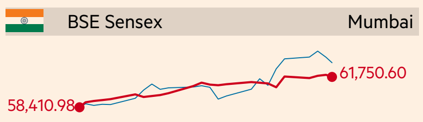
Day -1.39% Month 10.41% Year -18.49%

FTSE Straits Times Singapore



Day 0.61% Month 7.94% Year 1.30%

BSE Sensex Mumbai



Day -0.37% Month 6.58% Year 2.34%

Country	Index	Latest	Previous
Argentina	Merval	153964.57	154108.76
Australia	All Ordinaries	7339.00	7327.40
	S&P/ASX 200	7135.70	7122.20
	S&P/ASX 200 Res	5884.70	5975.40
Austria	ATX	3175.19	3187.11
Belgium	BEL 20	3599.84	3613.08
	BEL Mid	9499.47	9499.97
Brazil	IBovespa	107666.87	110243.33
Canada	S&P/TSX 60	1202.83	1210.17
	S&P/TSX Comp	19800.40	19957.96
	S&P/TSX Div Met & Min	1349.83	1391.37
Chile	S&P/CLX IGPA Gen	27774.69	28313.11
China	FTSE A200	10082.37	10148.30
	FTSE B35	9000.71	8988.96
	Shanghai A	3265.39	3270.13
	Shanghai B	289.91	291.11
	Shanghai Comp	3115.43	3119.98
	Shenzhen A	2133.40	2132.11
	Shenzhen B	1129.47	1136.95
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1239.28	1246.81
Denmark	OMXC Copenahgen 20	1696.26	1699.88
Egypt	EGX 30	12515.71	12341.20
Estonia	OMX Tallinn	1745.79	1739.42
Finland	OMX Helsinki General	10796.34	10915.90
France	CAC 40	6576.12	6607.22
	SBF 120	5045.58	5069.83
Germany	M-DAX	25509.56	25610.93
	TecDAX	3081.04	3080.42
	XETRA Dax	14266.38	14234.03
Greece	Athens Gen	880.97	903.87
	FTSE/ASE 20	2136.62	2194.25
Hong Kong	Hang Seng	18045.66	18256.48
	HS China Enterprise	6140.57	6225.71
	HSCC Red Chip	3475.83	3489.49
Hungary	Bux	44037.15	44277.83
India	BSE Sensex	61750.60	61980.72
	Nifty 500	15597.25	15663.30
Indonesia	Jakarta Comp	7044.99	7014.38
Ireland	ISEQ Overall	7107.46	7162.29
Israel	Tel Aviv 125	1952.79	1980.91

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	26323.49	26528.10
	FTSE Italia Mid Cap	39333.01	39538.21
	FTSE MIB	24339.67	24531.27
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	27930.57	28028.30
	S&P Topix 150	1689.89	1690.68
	Topix	1930.17	1935.49
Jordan	Amman SE	2464.98	2447.10
Kenya	NSE 20	1665.46	1658.65
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1106.55	1104.26
Lithuania	OMX Vilnius	919.04	916.77
Luxembourg	LuxX	1428.14	1428.36
Malaysia	FTSE Bursa KLCI	1449.32	1448.38
Mexico	IPC	51417.72	51544.94
Morocco	MASI	10621.27	10581.12
Netherlands	AEX	708.38	709.11
	AEX All Share	965.03	964.90
New Zealand	NZX 50	11294.52	11230.55
Nigeria	SE All Share	44046.94	43808.25
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	42819.72	42983.75

Country	Index	Latest	Previous
Philippines	Manila Comp	6403.74	6392.09
Poland	Wig	54813.13	55612.11
Portugal	PSI 20	5738.45	5797.76
	PSI General	4385.46	4415.16
Romania	BET Index	11718.48	11651.83
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	11151.24	11096.58
Singapore	FTSE Straits Times	3286.04	3266.17
Slovakia	SAX	331.17	331.17
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	72155.29	72607.46
	FTSE/JSE Res 20	69859.76	70706.22
	FTSE/JSE Top 40	65831.78	66222.28
South Korea	Kospi	2442.90	2477.45
	Kospi 200	316.75	321.96
Spain	IBEX 35	8040.70	8101.40
Sri Lanka	CSE All Share	8034.78	8087.04
Sweden	OMX Stockholm 30	2067.08	2074.98
	OMX Stockholm AS	790.38	795.27
Switzerland	SMI Index	10917.88	10936.62

Country	Index	Latest	Previous
Taiwan	Weighted Pr	14535.23	14537.35
Thailand	Bangkok SET	1614.95	1619.98
Turkey	BIST 100	4507.24	4507.24
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2461.30	2462.40
	FTSE 100	7346.54	7351.19
	FTSE 4Good UK	6629.71	6631.40
	FTSE All Share	4033.92	4035.87
	FTSE techMARK 100	6248.17	6250.61
USA	DJ Composite	11086.45	11183.82
	DJ Industrial	33516.68	33553.83
	DJ Transport	14032.83	14306.93
	DJ Utilities	916.23	935.51
	Nasdaq 100	11675.08	11699.09
	Nasdaq Cmp	11137.04	11183.66
	NYSE Comp	15148.87	15265.25
	S&P 500	3936.37	3958.79
	Wilshire 5000	39150.11	39433.57
Venezuela	IBC	10810.86	10647.05
Vietnam	VNI	969.26	942.90

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	418.04	419.42
	Euro Stoxx 50 (Eur)	3874.01	3882.78
	Euronext 100 ID	1251.62	1256.98
	FTSE 4Good Global ($)	9633.40	9654.00
	FTSE All World ($)	403.35	406.65
	FTSE E300	1692.83	1698.29
	FTSE Eurotop 100	3333.36	3339.72
	FTSE Global 100 ($)	2487.52	2495.41
	FTSE Gold Min ($)	1633.49	1652.15
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2650.10	2673.93
	FTSE World ($)	732.34	738.23
	FTSEurofirst 100 (Eur)	4503.87	4507.90
	FTSEurofirst 80 (Eur)	5268.59	5273.40
	MSCI ACWI Fr ($)	616.56	621.28
	MSCI All World ($)	2657.58	2678.23
	MSCI Europe (Eur)	1735.69	1749.08
	MSCI Pacific ($)	2594.46	2602.37
	S&P Euro (Eur)	1734.64	1738.76
	S&P Europe 350 (Eur)	1734.76	1740.92
	S&P Global 1200 ($)	2911.35	2932.36
	Stoxx 50 (Eur)	3665.20	3672.81

(c) Closed. (u) Unavaliable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Nvidia	64.1	159.40	0.30
Tesla	59.2	184.77	-2.15
Apple	40.3	150.01	1.22
Advanced Micro Devices	32.5	74.28	1.58
Amazon.com	29.5	96.30	-0.82
Microsoft	19.3	242.65	0.92
Netflix	13.7	295.75	-10.27
Alphabet	10.4	98.68	-0.17
Target	9.1	159.68	4.21
Alphabet	7.6	98.91	-0.08

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Cisco Systems	46.06	1.67	3.75
Centene	82.12	2.61	3.28
Unitedhealth	525.65	14.13	2.76
Target	159.68	4.21	2.71
Qorvo	94.99	2.16	2.33
Downs			
Norwegian Cruise Line Holdings Ltd	16.35	-1.25	-7.08
West Pharmaceutical Services	226.25	-13.86	-5.77
Svb Fin	221.80	-13.26	-5.64
Laboratory	230.31	-13.50	-5.54
Iqvia Holdings	211.98	-12.04	-5.37

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Shell	190.6	2364.50	-6.00
Bp	179.0	478.65	-2.70
Flutter Entertainment	131.8	11200.00	-90.00
Glencore	129.8	511.90	-5.40
Astrazeneca	121.0	10814.00	66.00
Rio Tinto	108.1	5367.00	-11.00
National Grid	102.7	1005.50	-5.50
Bae Systems	95.7	774.40	4.60
Sse	84.7	1669.00	25.00
Lloyds Banking	80.3	44.42	1.29

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Drax	601.00	31.00	5.44
Centrica	91.70	4.72	5.43
Vietnam Enterprise Investments	535.00	26.00	5.11
Kainos	1578.00	68.00	4.50
Mitie	77.60	3.30	4.44
Downs			
W.a.g Payment Solutions	69.80	-8.50	-10.86
Ocado	663.40	-62.60	-8.62
Harbour Energy	314.00	-19.70	-5.90
Hargreaves Lansdown	829.40	-41.80	-4.80
Halma	2247.00	-102.00	-4.34

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Roche Gs	344.3	311.06	-5.42
Siemens Ag Na O.n.	330.2	129.16	8.04
Nestle N	326.9	111.40	1.44
Asml Holding	282.5	560.80	2.10
Intesa Sanpaolo	272.4	2.18	-0.01
Novartis N	233.4	80.18	0.04
Zurich Insurance N	214.5	443.88	4.56
Santander	201.2	2.53	-0.05
Novo Nordisk B A/s	172.4	108.86	-0.15
Enel	168.1	5.00	-0.14

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Siemens Ag Na O.n.	129.16	8.04	6.64
Prosus	60.62	1.04	1.75
Nestle N	111.40	1.44	1.31
Zurich Insurance N	443.88	4.56	1.04
Volkswagen Ag Vzo O.n.	138.78	1.38	1.00
Downs			
Philips Kon	13.73	-0.44	-3.12
Alcon N	62.60	-1.99	-3.08
Enel	5.00	-0.14	-2.70
Sartorius Sted Bio	329.20	-7.80	-2.31
Air Liquide	133.62	-3.10	-2.27

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	1066.1	6319.00	-9.00
Tokyo Electron	695.8	45030.00	-1370.00
Sumitomo Mitsui Fin,.	391.9	4568.00	93.00
Nintendo Co.,	336.9	5879.00	64.00
Sony	328.0	11195.00	-195.00
Fast Retailing Co.,	307.6	82460.00	-890.00
Toyota Motor	295.8	1993.50	-2.50
Shin-etsu Chemical Co.,	277.2	17330.00	-355.00
Kddi	236.2	4064.00	28.00
Mitsubishi Ufj Fin,.	229.8	717.70	-1.80

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Isetan Mitsukoshi Holdings	1236.00	65.00	5.55
Jgc	1880.00	87.00	4.85
Takashimaya ,	1690.00	70.00	4.32
Tokyu	1652.00	62.00	3.90
Keio	4970.00	185.00	3.87
Downs			
Sumitomo Metal Mining Co.,	4506.00	-259.00	-5.44
Advantest	8940.00	-290.00	-3.14
Tokyo Electron	45030.00	-1370.00	-2.95
Thb Japan Steel Works,	3010.00	-85.00	-2.75
Pacific Metals Co.,	1933.00	-53.00	-2.67

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Nov 17 price(p)	%Chg week	%Chg ytd
Winners			
Centrica	91.70	10.1	28.9
B&m Eur Value Retail S.a.	386.40	8.2	-
Prudential	997.60	7.3	-
Informa	589.80	5.7	13.9
Natwest	253.00	5.4	3.9
Sage	796.40	4.9	-6.8
M&g	193.60	4.5	-3.6
Rio Tinto	5367.00	4.3	9.4
Standard Chartered	584.80	3.9	30.5
Haleon	289.35	3.5	-
Burberry	2043.00	3.4	11.9
Legal & General	253.60	2.8	-
Losers			
Harbour Energy	314.00	-14.7	-9.8
Vodafone	96.42	-8.8	-
Ocado	663.40	-7.0	-59.9
Hargreaves Lansdown	829.40	-7.0	-
Dcc	4329.00	-6.4	-
Persimmon	1292.00	-6.2	-
Ashtead	4862.00	-6.1	-
Rentokil Initial	531.40	-5.6	-7.8
Spirax-sarco Eng	11250.00	-5.3	-
Relx	2260.00	-4.9	-6.4
Endeavour Mining	1611.00	-4.8	-0.6
Segro	816.80	-4.8	-

FTSE 250	Nov 17 price(p)	%Chg week	%Chg ytd
Winners			
Kainos	1578.00	13.5	-
Fidelity China Special Situations	222.00	12.1	-
Domino's Pizza	278.60	8.6	-
Drax	601.00	7.3	-1.6
Molten Ventures	442.60	6.5	-
Hikma Pharmaceuticals	1421.50	6.5	-
Discoverie	856.00	6.5	-
Pantheon Int	272.00	5.8	-
Petrofac	120.00	5.5	6.2
Wood (john)	157.85	4.9	-
Dr. Martens	283.80	4.6	-
Just	71.80	4.5	-
Losers			
Aston Martin Lagonda Global Holdings	122.80	-18.1	-
Bridgepoint	205.80	-14.7	-57.7
W.a.g Payment Solutions	69.80	-12.4	-
Uk Commercial Property Reit	59.30	-10.8	-
Home Reit	76.70	-10.8	-
Balanced Commercial Property Trust	84.70	-10.6	-19.5
Cmc Markets	233.50	-10.5	-9.0
Ip	65.35	-7.8	-
Ninety One	202.00	-7.3	-
Syncona	178.00	-7.3	-
Synthomer	133.40	-6.8	-
Trainline	306.00	-6.6	11.0

FTSE SmallCap	Nov 17 price(p)	%Chg week	%Chg ytd
Winners			
Card Factory	68.90	36.4	16.0
Superdry	131.40	19.0	-
Jpmorgan China Growth & ome	327.25	16.0	-
Seraphim Space Investment Trust	52.50	12.9	-
Rank	72.00	12.5	-
Sabre Insurance	96.00	12.0	-
Capital & Regional	53.40	11.9	-
Lsl Property Services	262.00	11.5	-
Baillie Gifford China Growth Trust	258.50	10.7	-
Me Int	104.50	10.0	71.3
Norcros	196.00	9.5	-
Int Personal Finance	78.30	8.9	-
Losers			
Restaurant	32.46	-11.0	-
Enquest	25.25	-10.8	35.2
The Gym	94.00	-9.6	-63.2
Trustpilot	100.10	-8.2	-
Dignity	376.00	-8.0	-
Up Global Sourcing Holdings	136.25	-7.3	-
Renewi	545.00	-6.7	-
Ashoka India Equity Investment Trust	205.00	-6.4	1.5
Blackrock Latin American Investment Trust	369.00	-6.3	9.2
Foxtons	31.75	-6.3	-
Hostelworld	92.00	-6.0	32.9
Chrysalis Investments	62.50	-6.0	-

Industry Sectors	Nov 17 price(p)	%Chg week	%Chg ytd
Winners			
Life Insurance	6661.41	8.4	-12.8
Electricity	10236.16	5.0	2.2
Software & Computer Services	1878.96	4.5	-
Personal Goods	33299.10	4.3	-7.7
Real Estate & Investment Servic	2197.44	4.2	-
Gas Water & Multiutilities index	5674.83	3.0	-4.6
Real Estate Investment Trusts	2334.97	2.7	-
Construction & Materials	6778.02	2.6	-
Industrial Metals	7314.59	2.4	14.8
Equity Investment Instruments	11476.13	2.3	-
Banks	3116.95	2.1	2.2
Support Services	10181.48	2.0	-
Losers			
Automobiles & Parts	1296.44	-7.4	-
Mobile Telecommunications	2385.58	-4.0	-
Aerospace & Defense	4706.97	-3.3	12.3
Tobacco	35830.77	-2.8	22.4
Oil & Gas Producers	8252.21	-1.0	44.0
Pharmaceuticals & Biotech.	20055.46	-0.9	6.8
General Retailers	3241.00	-0.6	12.0
Industrial Engineering	14544.87	-0.1	-
Travel & Leisure	6323.16	-0.1	-
Mining	10232.98	0.0	-
Food & Drug Retailers	4056.37	0.2	-7.3
Health Care Equip.& Services	10830.68	0.3	31.4

Based on last week's performance. †Price at suspension.

CURRENCIES

Nov 17	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	162.7950	0.3368	168.1593	-0.8867	191.7559	-1.4559
Australia	Australian Dollar	1.5034	0.0227	1.5530	0.0122	1.7709	0.0099
Bahrain	Bahrainin Dinar	0.3770	0.0001	0.3894	-0.0028	0.4440	-0.0042
Bolivia	Bolivian Boliviano	6.9100	-	7.1377	-0.0525	8.1393	-0.0788
Brazil	Brazilian Real	5.4631	0.1207	5.6432	0.0841	6.4350	0.0813
Canada	Canadian Dollar	1.3351	0.0040	1.3790	-0.0060	1.5726	-0.0105
Chile	Chilean Peso	921.5850	16.3600	951.9523	10.0202	1085.5332	8.9480
China	Chinese Yuan	7.1278	0.0475	7.3626	-0.0048	8.3958	-0.0248
Colombia	Colombian Peso	5015.1900	81.8400	5180.4480	47.0489	5907.3829	40.1432
Costa Rica	Costa Rican Colon	612.8100	-0.4400	633.0028	-5.1146	721.8276	-7.5113
Czech Republic	Czech Koruna	23.6159	0.1797	24.3940	0.0075	27.8171	-0.0556
Denmark	Danish Krone	7.2005	0.0521	7.4377	-0.0005	8.4814	-0.0201
Egypt	Egyptian Pound	24.5145	0.0622	25.3223	-0.1216	28.8756	-0.2056
Hong Kong	Hong Kong Dollar	7.8271	0.0049	8.0850	-0.0544	9.2195	-0.0834
Hungary	Hungarian Forint	398.1558	3.2444	411.2755	0.3504	468.9869	-0.6816
India	Indian Rupee	81.6550	0.3500	84.3456	-0.2563	96.1813	-0.5149

Nov 17	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Indonesia	Indonesian Rupiah	15662.5000	60.0000	16178.6119	-56.5776	18448.8570	-107.2204
Israel	Israeli Shekel	3.4757	0.0429	3.5902	0.0182	4.0940	0.0113
Japan	Japanese Yen	140.5800	1.2350	145.2123	0.2168	165.5889	-0.1343
..One Month		140.5795	1.2340	145.2121	0.2164	165.5884	-0.1352
..Three Month		140.5782	1.2315	145.2115	0.2153	165.5873	-0.1375
..One Year		140.5728	1.2207	145.2083	0.2090	165.5884	-0.1420
Kenya	Kenyan Shilling	122.0000	-	126.0200	-0.9271	143.7035	-1.3912
Kuwait	Kuwaiti Dinar	0.3081	0.0001	0.3182	-0.0022	0.3629	-0.0034
Malaysia	Malaysian Ringgit	4.5535	0.0085	4.7035	-0.0258	5.3636	-0.0418
Mexico	Mexican Peso	19.4435	0.1360	20.0842	-0.0062	22.9025	-0.0600
New Zealand	New Zealand Dollar	1.6430	0.0192	1.6971	0.0075	1.9353	0.0041
Nigeria	Nigerian Naira	442.5000	-	457.0809	-3.3626	521.2199	-5.0459
Norway	Norwegian Krone	10.1709	0.1726	10.5060	0.1023	11.9803	0.0893
Pakistan	Pakistani Rupee	222.4500	0.2000	229.7800	-1.4823	262.0234	-2.2988
Peru	Peruvian Nuevo Sol	3.8452	0.0062	3.9719	-0.0227	4.5292	-0.0364
Philippines	Philippine Peso	57.3800	0.0225	59.2707	-0.4126	67.5878	-0.6276

Nov 17	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Poland	Polish Zloty	4.5549	0.0376	4.7050	0.0045	5.3652	-0.0072
Romania	Romanian Leu	4.7699	0.0411	4.9270	0.0065	5.6184	-0.0056
Russia	Russian Ruble	60.5750	0.1750	62.5710	-0.2782	71.3512	-0.4826
Saudi Arabia	Saudi Riyal	3.7585	-0.0002	3.8823	-0.0288	4.4271	-0.0431
Singapore	Singapore Dollar	1.3785	0.0085	1.4239	-0.0017	1.6237	-0.0057
South Africa	South African Rand	17.4188	0.2037	17.9927	0.0796	20.5175	0.0437
South Korea	South Korean Won	1339.1500	14.2000	1383.2766	4.5995	1577.3821	1.6176
Sweden	Swedish Krona	10.6628	0.1953	11.0142	0.1221	12.5597	0.1106
Switzerland	Swiss Franc	0.9548	0.0121	0.9863	0.0054	1.1247	0.0036
Taiwan	New Taiwan Dollar	31.1570	0.0915	32.1837	-0.1416	36.6998	-0.2465
Thailand	Thai Baht	35.8700	0.2025	37.0520	-0.0619	42.2512	-0.1682
Tunisia	Tunisian Dinar	3.2388	0.0166	3.3455	-0.0073	3.8149	-0.0172
Turkey	Turkish Lira	18.6153	0.0035	19.2286	-0.1378	21.9269	-0.2081
United Arab Emirates	UAE Dirham	3.6730	0.0000	3.7940	-0.0280	4.3264	-0.0419
United Kingdom	Pound Sterling	0.8490	0.0081	0.8769	0.0020	-	-
..One Month		0.8491	0.0081	0.8768	0.0020	-	-

Nov 17	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
..Three Month		0.8493	0.0081	0.8765	0.0020	-	-
..One Year		0.8499	0.0082	0.8754	0.0020	-	-
United States	United States Dollar	-	-	1.0330	-0.0076	1.1779	-0.0114
..One Month		-	-	1.0327	-0.1563	1.1780	-0.0114
..Three Month		-	-	1.0322	-0.1563	1.1782	-0.0114
..One Year		-	-	1.0303	-0.1564	1.1788	-0.0114
Vietnam	Vietnamese Dong	24815.0000	30.0000	25632.7443	-157.3348	29229.5956	-247.2784
European Union	Euro	0.9681	0.0071	-	-	1.1403	-0.0026
..One Month		0.9679	0.0071	-	-	1.1402	-0.0026
..Three Month		0.9673	0.0071	-	-	1.1399	-0.0026
..One Year		0.9655	0.0071	-	-	1.1388	-0.0026

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

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	£ Strlg Nov 17	Day's chge%	Euro Index	£ Strlg Nov 16	£ Strlg Nov 15	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7346.54	-0.06	6531.87	7351.19	7369.44	7291.20	3.70	1.61	16.79	255.43	7531.61
FTSE 250 (250)	19122.31	0.05	17001.81	19112.40	19455.88	23434.07	3.12	0.89	35.80	499.90	15877.57
FTSE 250 ex Inv Co (174)	19575.90	0.10	17405.10	19556.26	19943.57	24256.33	3.24	1.42	21.70	530.92	16585.14
FTSE 350 (350)	4072.69	-0.05	3621.06	4074.57	4094.09	4183.22	3.61	1.52	18.24	136.31	8284.77
FTSE 350 ex Investment Trusts (271)	4007.58	-0.03	3563.17	4008.92	4025.94	4070.69	3.67	1.68	16.20	136.69	4213.31
FTSE 350 Higher Yield (131)	3500.54	0.06	3112.36	3498.51	3505.82	3256.48	5.09	1.74	11.28	155.15	8026.60
FTSE 350 Lower Yield (219)	4230.92	-0.15	3761.75	4237.44	4269.60	4889.10	2.08	0.95	50.74	89.70	5206.80
FTSE SmallCap (237)	6146.88	-0.14	5465.25	6155.52	6224.58	7485.96	3.48	0.43	67.29	194.05	10322.45
FTSE SmallCap ex Inv Co (126)	4907.12	0.03	4362.96	4905.53	4976.06	6243.36	3.67	2.40	11.32	147.39	8563.21
FTSE All-Share (587)	4033.92	-0.05	3586.59	4035.87	4055.88	4164.77	3.61	1.49	18.58	134.78	8286.39
FTSE All-Share ex Inv Co (397)	3934.82	-0.03	3498.49	3936.10	3953.36	4011.12	3.67	1.69	16.11	133.98	4200.13
FTSE All-Share ex Multinationals (524)	1071.68	0.19	790.24	1069.60	1085.75	1341.91	3.92	0.94	27.02	36.72	2275.74
FTSE Fledgling (82)	11476.88	-0.28	10204.19	11509.36	11537.51	13559.12	3.77	4.57	5.79	338.47	24828.22
FTSE Fledgling ex Inv Co (32)	14948.41	-0.10	13290.76	14963.78	15037.28	18309.16	3.43	8.05	3.62	432.38	31393.85
FTSE All-Small (319)	4287.24	-0.15	3811.82	4293.60	4339.70	5212.72	3.50	0.67	42.54	134.90	9234.19
FTSE All-Small ex Inv Co (158)	3693.08	0.03	3283.55	3692.07	3743.86	4692.31	3.66	2.60	10.50	110.79	8161.98
FTSE AIM All-Share (758)	834.93	-0.59	742.34	839.88	848.46	1246.88	1.65	1.50	40.45	12.33	980.43
FTSE All-Share Technology (21)	2008.32	-0.28	1629.38	2014.04	2002.77	2381.02	1.91	0.88	59.43	39.34	2908.59
FTSE All-Share Telecommunications (6)	1551.78	-0.57	1258.99	1560.60	1554.93	1867.06	6.76	1.04	14.28	58.51	2310.63
FTSE All-Share Health Care (14)	13984.26	0.04	11345.67	13978.73	13964.43	13054.92	2.69	1.05	35.49	374.42	12952.13
FTSE All-Share Financials (254)	4477.15	0.79	3632.39	4442.18	4495.28	4988.43	3.76	1.11	23.88	160.04	4976.22
FTSE All-Share Real Estate (55)	850.44	0.28	721.80	848.08	864.68	1190.76	4.07	4.14	5.94	29.20	892.25
FTSE All-Share Consumer Discretionary (84)	4494.18	-0.21	3646.21	4503.46	4570.42	5438.49	2.39	1.05	39.64	102.72	4762.09
FTSE All-Share Consumer Staples (24)	19277.14	0.27	15639.88	19224.85	19090.06	19091.76	3.96	1.13	22.31	666.73	17652.95
FTSE All-Share Industrials (84)	6229.45	-0.85	5054.06	6282.93	6320.30	7351.17	2.30	1.31	33.27	134.04	7209.94
FTSE All-Share Basic Materials (22)	8761.03	-1.18	7107.98	8865.31	9000.16	7855.35	6.20	2.01	8.01	536.92	11940.94
FTSE All-Share Energy (13)	8535.70	-0.47	6925.16	8575.96	8563.60	6170.10	3.52	2.74	10.35	301.53	10384.39
FTSE All-Share Utilities (10)	8436.68	0.26	6844.82	8414.60	8374.03	8220.65	4.52	0.34	64.25	293.03	12745.58
FTSE All-Share Software and Computer Services (18)	2166.47	-0.25	1757.69	2171.80	2158.88	2556.20	1.91	0.88	59.27	42.72	3319.81
FTSE All-Share Technology Hardware and Equipment (3)	5124.84	-1.24	4157.87	5189.27	5205.85	6961.35	1.73	0.91	63.61	78.21	6623.43
FTSE All-Share Telecommunications Equipment (1)	617.41	1.47	500.92	608.47	616.97	648.58	1.99	2.31	21.76	11.51	882.54
FTSE All-Share Telecommunications Service Providers (5)	2381.97	-0.66	1932.53	2397.72	2387.10	2880.04	6.98	1.02	14.06	91.72	3228.56
FTSE All-Share Health Care Providers (3)	10923.48	-0.17	8862.41	10942.47	10923.32	8604.77	0.53	4.88	38.38	58.27	10138.75
FTSE All-Share Medical Equipment and Services (2)	5319.67	-0.82	4315.94	5363.83	5336.34	6215.62	2.68	0.97	38.60	142.76	5138.60
FTSE All-Share Pharmaceuticals and Biotechnology (9)	19995.84	0.09	16222.98	19978.11	19962.28	18450.89	2.71	1.04	35.31	539.80	16676.33
FTSE All-Share Banks (12)	3075.48	1.61	2495.19	3026.62	3061.53	3028.55	4.23	2.62	9.04	128.47	2721.67
FTSE All-Share Finance and Credit Services (8)	10904.65	0.47	8847.13	10853.59	10866.40	9595.33	1.91	2.05	25.48	208.86	14651.98
FTSE All-Share Investment Banking and Brokerage Services (31)	8489.89	0.10	6888.00	8481.30	8694.28	10764.72	5.20	1.65	11.66	387.97	11923.64
FTSE All-Share Closed End Investments (190)	11754.67	-0.28	9536.77	11787.98	11944.72	14511.91	2.66	-2.52	-14.92	279.56	7352.48
FTSE All-Share Life Insurance (6)	6777.26	1.45	5498.51	6680.45	6693.34	8345.37	4.52	1.08	20.46	294.59	8293.65
FTSE All-Share Nonlife Insurance (7)	3541.23	1.55	2873.06	3487.03	3539.95	3583.13	4.08	1.24	19.81	130.27	7541.55
FTSE All-Share Real Estate Investment and Services (10)	2105.05	0.27	1707.87	2099.43	2165.09	3058.91	2.39	4.11	10.17	41.03	6276.89
FTSE All-Share Real Estate Investment Trusts (45)	2121.54	0.28	1721.24	2115.62	2152.64	2940.09	4.37	4.14	5.53	79.19	3206.82
FTSE All-Share Automobiles and Parts (2)	1303.09	-0.52	1057.22	1309.94	1394.86	4098.77	0.75	-53.35	-2.51	14.02	1355.65
FTSE All-Share Consumer Services (2)	3042.55	-0.21	2468.47	3049.07	3043.41	2551.63	1.26	1.71	46.31	38.43	3859.46
FTSE All-Share Household Goods and Home Construction (12)	8350.91	-0.15	6775.24	8363.30	8575.05	13746.12	8.91	1.60	7.00	665.58	7474.77
FTSE All-Share Leisure Goods (2)	19534.51	0.27	15848.69	19482.36	20014.31	24103.91	3.46	1.59	18.14	831.45	21831.37
FTSE All-Share Personal Goods (4)	28668.79	1.65	23259.49	28204.46	28769.53	31137.23	1.81	2.95	18.80	402.68	22423.45
FTSE All-Share Media (11)	9311.69	-0.38	7554.74	9346.75	9329.89	9917.57	2.38	1.45	28.94	221.42	6551.72
FTSE All-Share Retailers (22)	1853.85	-0.30	1504.06	1859.46	1910.59	2793.46	2.73	3.64	10.04	47.84	2411.16
FTSE All-Share Travel and Leisure (29)	6168.10	-0.33	5004.28	6188.71	6376.64	7804.64	0.66	-9.54	-15.83	40.81	6379.64
FTSE All-Share Beverages (5)	27953.44	0.13	22679.12	27916.17	27691.74	30085.10	2.14	1.99	23.43	584.47	22402.38
FTSE All-Share Food Producers (10)	5728.29	0.69	4647.47	5689.03	5746.51	6785.28	2.58	2.38	16.32	85.60	5517.00
FTSE All-Share Tobacco (2)	35830.83	1.31	29070.18	35366.41	35032.09	27733.17	6.61	0.87	17.39	1728.22	33489.11
FTSE All-Share Construction and Materials (15)	7184.63	-0.90	5829.01	7250.04	7388.27	8644.11	3.21	0.64	48.53	227.86	8763.45
FTSE All-Share Aerospace and Defense (7)	4949.46	0.22	4015.58	4938.37	4847.72	4630.45	2.38	0.15	283.58	104.10	6036.81
FTSE All-Share Electronic and Electrical Equipment (10)	10823.64	-1.99	8781.40	11043.68	11166.44	14423.90	1.62	2.11	29.20	159.06	10702.65
FTSE All-Share General Industrials (8)	4971.58	-0.88	4033.53	5015.62	5068.77	5610.68	2.88	1.16	29.93	142.00	6566.65
FTSE All-Share Industrial Engineering (5)	16072.92	-1.69	13040.24	16349.32	16470.81	20508.29	1.63	2.01	30.61	261.52	21590.28
FTSE All-Share Industrial Support Services (31)	9796.51	-0.84	7948.08	9879.43	9884.74	12034.58	1.94	1.68	30.65	189.54	11275.34
FTSE All-Share Industrial Transportation (8)	5367.14	-0.85	4354.46	5413.13	5563.16	7061.82	2.17	2.82	16.30	98.14	5623.35
FTSE All-Share Industrial Materials (1)	16203.02	2.86	499.41	15752.94	16703.12	21704.05	2.03	1.81	27.24	329.06	20466.84
FTSE All-Share Industrial Metals and Mining (9)	7877.65	-1.26	6391.27	7978.03	8093.58	6402.62	6.63	2.01	7.50	517.27	12091.98
FTSE All-Share Precious Metals and Mining (5)	9724.56	-1.69	7889.71	9891.91	9935.57	22050.57	3.68	1.83	14.88	358.99	6856.15
FTSE All-Share Chemicals (7)	13067.12	-0.16	10601.58	13087.91	13433.95	18728.34	2.72	2.11	17.44	324.25	13096.46
FTSE All-Share Oil. Gas and Coal (12)	8286.09	-0.47	6722.65	8325.17	8313.16	5988.01	3.52	2.74	10.35	292.72	10454.58
FTSE Sector Indices											
Non Financials (333)	**4936.18**	**-0.28**	**4388.80**	**4950.20**	**4965.01**	**4983.69**	**3.56**	**1.61**	**17.48**	**161.72**	**8920.73**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7290.32	7275.83	7281.22	7289.30	7287.19	7289.00	7289.21	7283.79	7282.20	7307.53	7263.74
FTSE 250	18676.96	18591.87	18558.72	18588.62	18612.05	18588.53	18577.91	18565.63	18621.43	18687.66	18545.07
FTSE SmallCap	6016.39	6007.28	6002.83	6004.18	6009.71	6005.22	6001.15	5998.02	6001.62	6016.39	5997.90
FTSE All-Share	3992.48	3983.13	3984.49	3989.10	3988.96	3988.98	3988.69	3985.87	3986.83	3999.36	3976.58

Time of FTSE 100 Day's high:15:23:00 Day's Low09:19:45 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6826.15(12/10/2022)
Time of FTSE All-Share Day's high:15:23:00 Day's Low09:21:00 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3712.50(12/10/2022)

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FT 30 INDEX

	Nov 17	Nov 16	Nov 15	Nov 14	Nov 11	Yr Ago	High	Low
FT 30	2461.30	2462.40	2483.50	2512.20	2488.80	0.00	2880.10	2152.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2462.4	2455.1	2451.3	2446.8	2454.7	2452.5	2445.3	2455.3	2457.8	2470.8	2444.8

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FT WILSHIRE 5000 INDEX SERIES

	Nov 16		Nov 16
FT Wilshire 5000	40221.80	FT Wilshire Mid Cap	5466.34
FT Wilshire 2500	5149.66	FT Wilshire Small Cap	4936.27
FT Wilshire Mega Cap	5118.58	FT Wilshire Micro Cap	4823.17
FT Wilshire Large Cap	5176.48		

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FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	44.47	Consumer Goods	-4.48	Equity Invest Instr	-17.55
Oil & Gas	43.91	Gas Water & Multi	-4.70	FTSE SmallCap Index	-17.60
Tobacco	22.33	Health Care Eq & Srv	-6.18	FTSE 250 Index	-18.56
Mining	14.35	Software & Comp Serv	-8.86	Support Services	-19.34
Aerospace & Defense	12.05	Technology	-8.95	Construct & Material	-20.32
Pharmace & Biotech	6.89	Media	-9.51	Industrial Eng	-21.29
Basic Materials	6.70	Tech Hardware & Eq	-9.69	Leisure Goods	-23.07
Health Care	6.00	Travel & Leisure	-10.06	Fixed Line Telecomms	-23.15
Banks	2.18	Nonlife Insurance	-10.43	Electronic & Elec Eq	-26.35
Personal Goods	1.64	Beverages	-10.45	Household Goods & Ho	-26.51
Electricity	1.47	Financials	-12.23	Chemicals	-29.03
Beverages	31.66	Financial Services	-12.45	Real Est Invest & Tr	-31.34
FTSE 100 Index	-0.51	Life Insurance	-12.88	Food & Drug Retailer	-31.55
NON FINANCIALS Index	-2.67	Mobile Telecomms	-14.78	General Retailers	-32.58
Utilities	-3.15	Industrials	-15.88	Real Est Invest & Se	-33.34
FTSE All{HY-}Share Index	-4.14	Telecommunications	-17.11	Industrial Transport	-40.13
Oil Equipment & Serv	-4.15	Food Producers	-17.14	Automobiles & Parts	-64.26
		Consumer Services	-17.25	Industrial Metals &	-79.46

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1282.5	25.00	International Consolidated Airlines Group S.A.	131.72	-1.54
Admiral Group PLC	2065	24.00	Intertek Group PLC	3959	-26.00
Airtel Africa PLC	116.30	0.10	Jd Sports Fashion PLC	114.65	-0.30
Anglo American PLC	3142	-99.00	Kingfisher PLC	238.00	-3.00
Antofagasta PLC	1322	-43.00	Land Securities Group PLC	613.20	2.60
Ashtead Group PLC	4862	-44.00	Legal & General Group PLC	253.60	5.60
Associated British Foods PLC	1522	-6.50	Lloyds Banking Group PLC	44.42	1.29
Astrazeneca PLC	10814	66.00	London Stock Exchange Group PLC	8036	40.00
Auto Trader Group PLC	559.00	3.20	M&G PLC	193.60	3.75
Aveva Group PLC	3170	-10.00	Melrose Industries PLC	129.30	0.35
Aviva PLC	448.20	5.30	Mondi PLC	1544	-18.50
B&M European Value Retail S.A.	386.40	0.50	National Grid PLC	1005.5	-5.50
Bae Systems PLC	774.40	4.60	Natwest Group PLC	253.00	6.10
Barclays PLC	156.66	2.26	Next PLC	5540	-32.00
Barratt Developments PLC	395.70	-1.80	Ocado Group PLC	663.40	-62.60
Berkeley Group Holdings (The) PLC	3696	-4.00	Pearson PLC	973.20	2.80
BP PLC	478.65	-2.70	Pershing Square Holdings LTD	2875	-40.00
British American Tobacco PLC	3287	30.50	Persimmon PLC	1292	10.00
British Land Company PLC	399.50	7.80	Phoenix Group Holdings PLC	576.80	6.60
Bt Group PLC	120.05	-0.80	Prudential PLC	997.60	11.80
Bunzl PLC	2974	-37.00	Reckitt Benckiser Group PLC	5796	12.00
Burberry Group PLC	2043	40.00	Relx PLC	2260	-20.00
Centrica PLC	91.70	4.72	Rentokil Initial PLC	531.40	-6.60
Coca-Cola Hbc AG	1995	-30.00	Rightmove PLC	539.40	-1.20
Compass Group PLC	1847.5	-3.50	Rio Tinto PLC	5367	-11.00
Convatec Group PLC	221.20	-3.60	Rolls-Royce Holdings PLC	86.60	-0.62
Crh PLC	3262.5	-46.00	Rs Group PLC	950.50	11.00
Croda International PLC	6876	-20.00	Sage Group PLC	796.40	-14.80
Dcc PLC	4329	-115.00	Sainsbury (J) PLC	210.90	-0.10
Dechra Pharmaceuticals PLC	2714	-50.00	Schroders PLC	451.00	1.60
Diageo PLC	3652.5	7.00	Scottish Mortgage Investment Trust PLC	793.80	-13.60
Endeavour Mining PLC	1611	-37.00	Segro PLC	816.80	-4.00
Entain PLC	1318.5	-	Severn Trent PLC	2653	-39.00
Experian PLC	2878	-46.00	Shell PLC	2364.5	-6.00
F&C Investment Trust PLC	915.00	-	Smith & Nephew PLC	1058	-5.50
Flutter Entertainment PLC	11200	-90.00	Smith (Ds) PLC	304.50	-2.90
Frasers Group PLC	777.00	8.50	Smiths Group PLC	1596.5	21.50
Fresnillo PLC	844.80	-6.80	Smurfit Kappa Group PLC	3010	-82.00
Glaxosmithkline PLC	1354.4	-20.00	Spirax-Sarco Engineering PLC	11250	-350.00
Glencore PLC	511.90	-5.40	Sse PLC	1669	25.00
Haleon PLC	289.35	1.30	St. James's Place PLC	1167.5	3.00
Halma PLC	2247	-102.00	Standard Chartered PLC	584.80	11.20
Harbour Energy PLC	314.00	-19.70	Taylor Wimpey PLC	101.15	-0.25
Hargreaves Lansdown PLC	829.40	-41.80	Tesco PLC	226.50	0.60
Homeserve PLC	1189	-2.00	Unilever PLC	4058	-6.50
HSBC Holdings PLC	481.20	5.70	Unite Group PLC	943.00	5.50
Imperial Brands PLC	2109	56.00	United Utilities Group PLC	993.00	-18.00
Informa PLC	589.80	4.40	Vodafone Group PLC	96.42	-0.74
Intercontinental Hotels Group PLC	4700	25.00	Whitbread PLC	2477	10.00
Intermediate Capital Group PLC	1172	-15.00	Wpp PLC	856.60	3.40

FTSE GLOBAL EQUITY INDEX SERIES

Nov 17 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9518	692.14	-0.8	11.6	-18.3	1108.46	-16.6	2.3
FTSE Global All Cap	9518	692.14	-0.8	11.6	-18.3	1108.46	-16.6	2.3
FTSE Global Large Cap	1907	618.79	-0.7	11.4	-18.5	1021.53	-16.8	2.3
FTSE Global Mid Cap	2264	894.97	-1.1	12.9	-16.6	1348.12	-14.9	2.3
FTSE Global Small Cap	5347	923.00	-1.6	11.2	-19.4	1329.53	-17.9	2.1
FTSE All-World	4171	406.65	-0.7	11.6	-18.2	689.69	-16.5	2.3
FTSE World	2664	738.23	-0.7	12.0	-17.8	1680.16	-16.1	2.3
FTSE Global All Cap ex UNITED KINGDOM In	9227	731.46	-0.8	11.5	-18.4	1148.97	-16.8	2.2
FTSE Global All Cap ex USA	7707	486.16	-0.6	13.3	-19.0	863.78	-16.6	3.3
FTSE Global All Cap ex JAPAN	8113	722.81	-0.9	11.7	-18.3	1167.76	-16.6	2.3
FTSE Global All Cap ex Eurozone	8855	733.11	-0.8	10.9	-18.1	1148.51	-16.5	2.2
FTSE Developed	2180	677.77	-0.8	12.0	-17.9	1092.80	-16.3	2.2
FTSE Developed All Cap	5828	706.58	-0.8	11.9	-18.0	1122.40	-16.4	2.1
FTSE Developed Large Cap	834	635.13	-0.7	11.7	-18.1	1042.37	-16.5	2.2
FTSE Developed Europe Large Cap	220	373.11	-0.4	16.6	-17.0	738.88	-14.4	3.2
FTSE Developed Europe Mid Cap	355	562.70	-1.3	20.1	-27.0	966.86	-25.1	3.0
FTSE Dev Europe Small Cap	746	787.84	-1.7	19.0	-28.7	1300.66	-26.7	3.2
FTSE North America Large Cap	234	850.40	-0.8	10.3	-18.5	1277.06	-17.3	1.7
FTSE North America Mid Cap	423	1121.47	-1.2	12.3	-14.2	1556.76	-12.9	1.8
FTSE North America Small Cap	1334	1106.10	-1.8	10.5	-16.2	1472.15	-15.1	1.6
FTSE North America	657	557.81	-0.9	10.7	-17.7	856.35	-16.5	1.7
FTSE Developed ex North America	1523	257.72	-0.5	15.1	-18.3	493.21	-15.9	3.1
FTSE Japan Large Cap	169	368.29	-0.2	11.0	-19.2	541.39	-17.2	2.5
FTSE Japan Mid Cap	340	511.04	0.1	7.6	-16.7	713.41	-14.6	2.6
FTSE Global wi JAPAN Small Cap	896	568.34	0.3	8.3	-18.3	823.79	-16.1	2.8
FTSE Japan	509	151.17	-0.1	10.3	-18.7	248.82	-16.7	2.5
FTSE Asia Pacific Large Cap ex Japan	1088	663.54	-0.5	11.8	-20.4	1209.08	-18.1	3.2
FTSE Asia Pacific Mid Cap ex Japan	868	943.70	-0.8	12.1	-16.7	1657.62	-14.2	3.5
FTSE Asia Pacific Small Cap ex Japan	2114	533.11	-0.6	10.7	-26.8	909.82	-24.8	3.1
FTSE Asia Pacific Ex Japan	1956	528.46	-0.6	11.9	-20.1	1023.38	-17.8	3.2
FTSE Emerging All Cap	3690	696.80	-0.7	8.7	-20.9	1213.88	-18.3	3.7
FTSE Emerging Large Cap	1073	642.92	-0.6	8.8	-21.9	1126.23	-19.4	3.7
FTSE Emerging Mid Cap	918	1010.61	-1.0	9.1	-12.1	1772.13	-9.0	4.0
FTSE Emerging Small Cap	1699	749.15	-0.8	6.8	-22.7	1249.67	-20.2	3.4
FTSE Emerging Europe	111	114.86	-0.5	21.3	-72.3	240.18	-71.1	2.9
FTSE Latin America All Cap	262	718.82	-2.0	2.8	1.4	1407.08	8.9	11.0
FTSE Middle East and Africa All Cap	329	760.64	-0.3	5.2	-4.5	1392.81	-1.7	3.2
FTSE Global wi UNITED KINGDOM All Cap In	291	306.97	-0.5	13.9	-14.7	626.88	-11.8	3.7
FTSE Global wi USA All Cap	1811	957.78	-1.0	10.5	-17.8	1386.34	-16.7	1.6
FTSE Europe All Cap	1461	422.77	-0.7	17.4	-21.0	803.70	-18.7	3.2
FTSE Eurozone All Cap	663	411.04	-0.7	20.7	-20.7	775.53	-18.4	3.1
FTSE EDHEC-Risk Efficient All-World	4171	465.41	-0.9	12.1	-14.8	732.44	-12.8	2.7
FTSE EDHEC-Risk Efficient Developed Europe	575	309.41	-1.1	18.3	-25.1	543.83	-22.9	3.3
Oil & Gas	131	424.71	-1.2	13.4	29.6	869.09	35.4	4.4
Oil & Gas Producers	87	423.85	-1.4	12.3	33.4	890.62	39.9	4.6

Nov 17 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	24	287.88	-0.7	16.8	23.0	533.30	27.8	4.1
Basic Materials	394	600.59	-0.8	16.0	-10.7	1105.38	-7.0	4.8
Chemicals	196	805.70	-0.9	14.6	-16.8	1424.16	-14.6	3.0
Forestry & Paper	20	258.59	0.3	8.7	-15.3	522.11	-12.5	3.8
Industrial Metals & Mining	98	491.91	-1.2	19.8	-11.1	940.82	-6.5	7.6
Mining	80	944.41	-0.4	16.9	1.5	1841.37	7.7	6.1
Industrials	803	494.27	-0.8	15.7	-17.7	788.22	-16.1	2.1
Construction & Materials	154	566.20	-0.9	15.6	-23.4	953.03	-21.8	2.2
Aerospace & Defense	35	862.61	-0.2	15.8	7.4	1344.40	8.8	1.5
General Industrials	76	238.32	-1.0	17.6	-14.1	420.94	-12.1	2.5
Electronic & Electrical Equipment	157	628.24	-0.7	18.0	-21.9	902.75	-20.7	1.5
Industrial Engineering	158	987.84	-0.9	19.8	-14.6	1570.01	-13.0	1.9
Industrial Transportation	133	913.18	-0.7	13.0	-17.8	1484.74	-15.3	3.4
Support Services	90	526.56	-0.8	11.4	-25.9	783.46	-24.9	1.5
Consumer Goods	569	545.94	-0.6	8.6	-20.8	917.32	-19.2	2.4
Automobiles & Parts	132	508.26	-2.7	4.8	-34.3	822.08	-33.2	2.0
Beverages	72	752.76	0.3	7.1	-6.6	1276.63	-5.0	2.3
Food Producers	134	710.97	0.6	8.2	-9.5	1225.16	-7.5	2.5
Household Goods & Home Construction	65	513.78	0.1	12.7	-21.5	866.06	-19.4	2.8
Leisure Goods	53	235.87	-0.5	9.4	-25.9	333.52	-25.0	1.4
Personal Goods	98	890.20	-0.3	14.2	-22.9	1368.60	-21.7	1.9
Tobacco	15	957.21	0.2	6.8	-0.4	2706.10	4.0	6.3
Health Care	343	709.19	-0.3	8.1	-10.2	1129.90	-8.7	1.8
Health Care Equipment & Services	133	1348.57	-0.4	6.7	-18.9	1653.70	-18.3	1.0
Pharmaceuticals & Biotechnology	210	480.50	-0.2	9.0	-3.3	823.15	-1.2	2.2
Consumer Services	427	529.90	-0.9	8.8	-24.8	756.39	-24.0	1.2
Food & Drug Retailers	69	315.78	0.1	10.8	-8.3	502.33	-6.2	2.4
General Retailers	141	933.78	-1.1	6.8	-27.0	1275.48	-26.4	1.0
Media	75	298.50	-1.1	11.5	-36.4	429.04	-35.7	1.3
Travel & Leisure	142	444.94	-0.4	11.5	-13.3	649.28	-12.4	1.1
Telecommunication	89	130.21	0.0	10.5	-12.2	306.57	-8.9	4.3
Fixed Line Telecommuniations	31	101.65	-0.4	12.9	-9.8	275.04	-5.6	5.2
Mobile Telecommunications	58	153.95	0.2	9.3	-13.4	312.21	-10.6	3.8
Utilities	200	312.85	0.4	11.6	-8.8	730.69	-6.3	3.4
Electricity	142	354.88	0.3	10.5	-8.0	816.24	-5.5	3.3
Gas Water & Multiutilities	58	307.09	0.6	14.6	-11.0	742.33	-8.2	3.7
Financials	853	259.69	-0.6	13.0	-13.4	498.92	-11.0	3.2
Banks	270	198.42	-0.7	10.8	-12.3	425.06	-9.0	4.1
Nonlife Insurance	71	351.68	0.4	12.5	0.4	586.82	3.2	2.9
Life Insurance	51	215.78	-0.2	13.4	-10.7	415.55	-7.3	4.0
Financial Services	211	434.03	-0.8	16.4	-13.0	658.81	-11.7	1.7
Technology	362	468.59	-1.2	12.1	-30.9	611.63	-30.3	1.1
Software & Computer Services	186	699.80	-0.7	8.0	-34.6	846.76	-34.2	0.7
Technology Hardware & Equipment	176	420.17	-1.8	16.7	-26.7	590.09	-25.7	1.5
Alternative Energy	20	187.21	-0.6	23.6	-10.2	268.64	-9.8	0.4
Real Estate Investment & Services	142	249.39	-1.6	9.9	-24.2	485.77	-22.1	3.2
Real Estate Investment Trusts	108	440.92	-0.8	12.9	-26.1	1029.74	-24.0	3.9
FTSE Global Large Cap	1907	618.79	-0.7	11.4	-18.5	1021.53	-16.8	2.3

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UK STOCK MARKET TRADING DATA

	Nov 17	Nov 16	Nov 15	Nov 14	Nov 11	Yr Ago
Order Book Turnover (m)	88.09	125.09	410.61	95.15	95.15	95.15
Order Book Bargains	684793.00	834183.00	817683.00	1027018.00	1027018.00	1027018.00
Order Book Shares Traded (m)	1223.00	1319.00	1300.00	2021.00	2021.00	2021.00
Total Equity Turnover (£m)	8166.70	7566.62	7561.60	5959.72	5959.72	5959.72
Total Mkt Bargains	881377.00	1060806.00	1053589.00	1279254.00	1279254.00	1279254.00
Total Shares Traded (m)	7395.00	9905.00	6839.00	6195.00	6195.00	6195.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

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Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
abrdn Japan Investment Trust	Int			**6.731L**	10.334	**54.250L**	77.900	**5.00000**	6.00000	Dec 29	**14.000**	15.000
Burberry Group	Int	**1345.000**	1213.000	**251.000**	191.000	**49.100**	35.800	**0.00000**	11.60000	-	**35.400**	54.100
Fuller Smith & Turner	Int	**168.900**	116.300	**10.700**	10.600	**13.130**	5.760	**0.00000**	3.90000	-	**7.410**	3.900
Grainger	Pre	**277.500**	246.400	**298.600**	152.100	**31.000**	16.200	**3.89000**	3.32000	Feb 14	**5.970**	5.150
Great Portland Estates	Int	**43.500**	42.200	**86.700L**	62.300	**34.300L**	24.600	**0.00000**	4.70000	-	**7.900**	12.600
Halma	Int	**875.500**	737.200	**145.500**	167.500	**30.390**	35.830	**0.00000**	7.35000	-	**11.530**	18.130
Intermediate Capital Group	Int			**30.800**	266.400	**11.700**	83.900	**0.00000**	18.70000	-	**57.300**	57.700
International Distributions Services	Int	**5838.000**	6072.000	**127.000L**	315.000	**9.000L**	27.000	**0.00000**	6.70000	-	**13.300**	16.700
Investec	Int	**1110.465**	909.630	**577.470**	329.445	**50.600**	25.000	**0.00000**	11.00000	-	**14.000**	18.500
MITIE Group	Int	**1874.300**	1872.700	**43.100**	49.200	**2.600**	3.700	**0.70000**	0.40000	Feb 1	**2.100**	0.400
Montanaro European Smaller Companies Trust	Int			**88.038L**	70.200	**46.650L**	39.940	**0.20000**	0.20000	Jan 5	**0.200**	0.925
SDX Energy	3rd	**33.392**	39.975	**2.439**	6.805L	**0.010L**	0.059L	**0.00000**	0.00000	-	**0.000**	0.000
Triple Point Income VCT	Int			**1.364**	0.142	**4.760**	0.090	**7.24000**	3.50000	Nov 4	**12.000**	7.000
Troy Income & Growth Trust	Pre			**21.240L**	24.321	**7.030L**	7.220	**0.50000**	0.49000	Oct 21	**0.990**	0.980

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
11/09	250.00		ITH	Ithaca Energy PLC	200.00	-10.61	254.90	198.40	201032.4
10/31	4.00		BWN	Bowen Fintech PLC	6.25	0.25	6.00	5.90	343.8
10/27	10.00		UMR	Unicorn Mineral Resource PLC	18.50	0.00	19.50	10.00	513.5
10/24	1.00		ATN	Eastinco Mining and Exploration PLC	0.95	0.00	1.00	0.90	916.5
10/21	55.00	AIM	SND	Sondrel (Holdings) PLC	58.50	-0.30	60.55	51.67	5116.5
10/07	10.00		ACG	ACG Acquisition Company Ltd	9.90	0.05	10.10	9.85	154.7

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	24.31	0.15	28.33	20.78	5.90	10.72	48346.47
BHP Group	43.80	-0.65	53.72	35.83	8.92	10.82	147483.6
CmwBkAu	105.64	1.06	108.39	86.98	3.15	20.89	118834.91
CSL	293.33	3.93	319.78	240.10	0.98	44.16	94084.47
NatAusBk	30.60	0.29	33.75	25.43	2.79	17.14	64191.42
Telstra	3.88	0.04	4.20	3.62	2.45	33.19	29819.44
Wesfarmers	47.23	0.74	60.78	40.03	3.58	25.53	35619.64
Westpac Bank	23.20	-0.64	24.67	18.80	3.64	17.75	54027.58
Woolworths	34.43	0.71	41.13	31.67	2.98	41.29	27858.66
Belgium (€)							
AnBshInBv	52.97	0.05	58.72	45.56	0.96	27.59	95051.13
KBC Grp	50.54	0.28	81.70	45.53	6.52	8.58	21763.55
Brazil (R$)							
Ambev	15.31	-0.13	17.74	12.81	3.79	22.46	44138.57
Bradesco	13.01	-	17.72	12.69	6.56	5.85	11598.85
Cielo	4.85	-0.20	6.22	2.01	3.09	15.94	2411.91
ItauHldFin	22.43	-0.17	26.04	18.86	3.55	8.62	20357.2
Petrobras	30.66	-0.54	42.08	26.76	16.10	4.25	41768.17
Vale	82.15	-0.29	107.11	61.85	16.27	3.56	71860.68
Canada (C$)							
Bausch Hlth	9.21	-0.10	36.26	5.10	-	-3.00	2495.03
BCE	61.89	-0.46	74.09	55.66	5.20	22.52	42275.66
BkMontrl	130.57	-1.17	154.47	113.73	3.18	10.91	66239.21
BkNvaS	68.41	-0.40	95.00	63.19	4.98	9.30	61047.88
Brookfield	60.06	-1.02	79.04	51.07	1.01	21.64	72868.46
CanadPcR	104.10	0.67	106.93	86.12	0.67	27.09	72526.45
CanImp	62.62	-0.66	167.50	55.35	8.82	4.72	42454.42
CanNatRs	79.15	-1.75	88.18	48.42	2.32	13.33	65647.87
CanNatRy	164.81	1.16	171.48	137.26	1.37	26.02	83591.77
Enbridge	53.50	-0.32	59.69	46.88	5.74	20.28	81141.43
GtWesLif	31.15	-0.28	41.50	27.99	5.70	9.51	21741.62
ImpOil	74.54	-0.79	79.83	41.04	1.27	23.30	34142.82
Manulife	23.23	-0.10	28.09	20.81	4.63	7.14	32855.14
Nutrien	104.68	1.07	147.93	84.37	2.04	16.33	41033.57
RylBkC	131.65	0.13	149.60	116.75	3.11	12.71	136692.14
SHOP	50.36	-0.98	222.87	33.00	-	1.89	37671.55
Suncor En	47.27	-1.04	53.62	28.77	2.04	18.57	47940.47
ThmReut	148.90	-0.97	156.62	119.23	1.26	11.15	53634.34
TntoDom	88.52	0.39	109.08	77.27	3.39	12.05	120316.33
TrnCan	63.78	-0.72	74.44	54.60	5.02	37.31	48344.75
China (HK$)							
AgricBkCh	2.44	-	3.15	2.22	8.46	3.30	9582.52
Bk China	2.66	-	3.20	2.51	8.09	3.39	28418.19
BkofComm	4.20	-0.01	5.74	3.84	8.06	3.57	18787.37
BOE Tech	0.68	0.03	0.86	0.57	-	11.30	17.29
Ch Coms Cons	3.37	-0.02	5.17	3.09	5.84	2.88	1902.42
Ch Evrbrght	2.24	-0.01	3.11	2.04	10.35	3.12	3628.53
Ch Rail Cons	4.15	-0.03	5.95	3.75	6.11	2.27	1100.87
Ch Rail Gp	3.85	-0.03	5.88	3.48	5.17	3.19	2069.53
ChConstBk	4.56	-0.04	6.23	4.12	7.88	3.41	140064.73
China Vanke	13.34	-	21.70	9.96	10.33	6.19	3249.33
ChinaCitic	3.24	-0.01	4.08	2.92	8.38	3.10	6160.47
ChinaLife	10.62	0.10	15.04	8.53	6.22	4.78	10096.34
ChinaMBank	35.45	-1.80	70.80	25.40	3.90	6.73	20792.83
ChinaMob	49.85	0.35	58.65	45.90	6.25	7.92	130308.07
ChinaPcIns	16.64	0.10	25.90	12.10	7.64	5.58	5900.15
ChMinsheng	2.48	-0.01	3.29	2.19	9.60	3.30	2636.29
ChMrchSecs	13.40	-	18.56	12.06	3.28	11.90	13953.22
Chna Utd Coms	3.65	0.06	4.08	3.30	3.08	18.22	15855.23
ChShenEgy	22.00	-0.55	27.65	15.98	9.01	6.87	9493.26
ChShpbldng	3.59	-0.02	4.33	3.36	-	-265.59	11122.95
ChStConEng	5.27	0.01	6.40	4.63	4.10	4.06	30192.04
ChUncHK	3.76	0.03	4.43	3.27	4.05	8.53	14698.73
CNNC Intl	6.21	-	8.92	5.78	2.02	16.15	16423.22
CSR	2.90	0.02	3.80	2.37	6.91	8.21	1619.52
Daqin	6.51	-0.05	7.25	5.95	7.41	9.81	13578.43
GuosenSec	9.14	0.04	11.70	8.43	2.53	10.45	11319.1
HaitongSecs	4.48	-0.05	7.34	3.77	6.21	5.01	1951.54
Hngzh HikVDT	31.57	0.15	55.55	28.10	2.55	17.26	40640.61
Hunng Pwr	3.32	-0.06	5.74	2.62	5.76	-3.84	1993.76
IM Baotou Stl	1.95	-0.01	3.21	1.75	-	33.04	8666.25
In&CmBkCh	3.72	-0.01	4.94	3.37	7.91	3.51	41250.61
IndstrlBk	16.38	-0.13	23.22	15.01	4.76	4.47	47740.46
Kweichow	1567	-18.25	2216.96	1359	1.24	35.12	276168.81
Midea	0.37	0.01	0.60	0.35	-	-4.14	14.23
New Ch Life Ins	16.28	0.08	24.70	12.04	9.11	3.18	2150.89
PetroChina	3.38	-0.04	4.49	3.01	6.84	7.02	9111.14
PingAnIns	44.10	-0.35	69.40	31.30	5.50	7.22	41961.66
PngAnBnk	11.69	-0.13	19.06	10.39	1.50	6.95	31826.46
Pwr Cons Corp	7.15	-0.04	9.81	5.99	1.25	14.79	11025.7
SaicMtr	14.51	-0.04	22.14	13.77	4.12	7.23	23784.14
ShenwanHong	0.09	0.01	0.18	0.05	-	2.87	105.79
ShgPdgBk	6.98	-0.05	8.81	6.64	6.63	4.44	28743.7
Sinopec Corp	3.42	-0.03	4.28	3.06	3.95	4.25	11124.07
Sinopec Oil	1.97	-	2.37	1.70	-	651.78	3750.3
Denmark (kr)							
DanskeBk	119.95	-0.95	133.25	91.28	1.60	8.58	14362.86
MollerMrsk	14970	115.00	24070	13185	2.18	2.55	17407.2
NovoB	809.70	-1.10	864.40	604.40	1.11	40.78	195953.6
Finland (€)							
Nokia	4.57	-0.01	5.71	4.12	-	16.48	26916.14
SampoA	46.99	-0.61	48.74	35.85	3.49	10.44	25873.93
France (€)							
Airbus Grpe	113.06	-1.20	120.36	86.52	-	21.64	92050.88
AirLiquide	134.90	-1.82	153.40	114.48	1.95	26.00	72933.14
AXA	26.63	-0.07	29.09	20.34	5.14	9.37	64273.17
BNP Parib	52.51	0.42	68.07	40.67	4.88	7.90	66950.47
ChristianDior	683.00	-0.50	733.50	513.00	0.98	26.04	127349.07
Cred Agr	9.56	0.03	14.27	8.09	8.01	5.45	30051.62
Danone	49.91	-0.39	58.24	46.48	3.72	17.73	34839.06
EDF	11.94	0.01	12.49	6.64	3.91	9.59	47914.82
Engie SA	14.33	0.06	14.61	9.79	3.54	10.54	36037.49
EssilorLuxottica	169.35	-1.90	195.00	132.70	0.61	53.93	78267.83
Hermes Intl	1453.5	11.00	1678	957.60	0.30	65.16	158501.33
LOreal	346.55	1.00	433.65	300.45	1.11	44.09	192132.62
LVMH	696.80	-1.80	741.60	535.00	0.96	30.46	362224.68
Orange	9.73	-0.03	11.94	8.93	5.90	3372.94	26737.96
PernodRic	184.15	-1.25	214.50	166.60	1.62	29.03	49066.22
Renault	32.78	0.74	38.07	20.47	-	-25.56	10013.2
Safran	112.34	0.08	119.32	87.85	0.37	1173.37	49578.01
Sanofi	84.50	-0.22	106.08	76.45	3.63	17.84	110631.98
Sant Gbn	43.37	-0.14	64.82	35.20	3.00	10.83	23105.45
Schneider	138.40	-0.14	173.78	110.02	1.80	25.49	81643.7
SocGen	24.08	0.20	37.68	18.34	2.20	4.25	21139.55
Total	57.43	-0.81	59.15	40.09	4.50	11.52	155373.1
UnibailR	52.12	-1.01	73.09	39.68	-	-7.75	7470.46
Vinci	94.64	-0.58	103.74	80.74	2.72	21.92	58458.34
Vivendi	8.42	-0.15	12.16	7.59	6.82	-15.71	9643.94
Germany (€)							
Allianz	201.65	-0.60	232.50	156.22	4.56	13.30	85079.57
BASF	48.96	-0.62	69.15	37.90	6.45	8.47	46445.74
Bayer	52.53	-0.09	67.99	43.91	3.65	53.79	53307.23
BMW	82.27	-0.26	97.60	67.58	2.21	4.58	51158.09
Continental	55.74	-1.92	111.46	44.44	-	8.97	11515.68
Deut Bank	10.10	-0.03	14.64	7.46	-	10.38	21562.25
Deut Tlkm	18.91	-0.11	19.77	14.47	3.04	22.70	97390.72
DeutsPost	38.37	-0.06	58.31	29.68	3.45	10.14	49102.9
E.ON	8.88	-0.01	12.54	7.28	5.07	5.15	24233.23
Fresenius Med	29.20	-0.35	63.66	26.19	4.39	9.21	8837.65
Fresenius SE	23.75	-0.25	38.11	19.76	3.63	7.84	13701.5
HenkelKgaA	62.35	0.05	74.75	56.55	2.81	17.32	16732.02
Linde	318.80	-3.05	329.15	244.00	1.12	51.73	162801.56
Mercedes-Benz	60.22	-0.93	77.90	50.19	2.15	6.29	66548.51
MuenchRkv	290.10	0.30	293.20	205.15	3.23	14.48	41981.92
SAP	107.68	0.84	126.48	81.35	1.64	25.22	136644.29
Siemens	129.58	8.46	156.98	93.67	2.59	20.35	113772.34
Volkswgn	183.90	-0.20	286.40	158.80	2.50	6.49	56055.18
Hong Kong (HK$)							
AIA	76.40	0.35	92.50	57.25	1.52	20.08	115412.32
BOC Hold	24.00	-0.70	32.75	23.20	4.52	12.65	32419
Ch OSLnd&Inv	20.00	0.04	27.35	14.58	5.24	5.10	27966.59
ChngKng	47.10	-0.90	57.00	42.90	3.28	11.07	21694.41
Citic Ltd	7.71	-0.09	9.26	6.96	6.09	3.66	28655.07
Citic Secs	14.82	0.02	21.32	11.82	2.82	7.84	4960.91
CK Hutchison	44.20	-	60.45	38.80	4.50	5.75	21653.53
CNOOC	10.38	-0.06	12.54	7.55	3.80	9.31	59115.92
HangSeng	123.10	0.20	169.50	110.00	4.33	20.35	30068.34
HK Exc&Clr	303.40	-1.40	483.60	208.20	2.63	35.14	49144.86
MTR	38.30	0.40	43.70	33.45	2.80	28.48	30348.3
SandsCh	19.96	-0.04	24.90	12.50	-	-22.64	20638.52
SHK Props	91.95	-0.80	100.80	83.10	4.70	10.79	34042.11
Tencent	292.00	-2.40	503.50	198.60	0.48	11.80	357439.53
India (Rs)							
Bhartiartl	846.15	4.95	849.40	628.75	-	189.36	61714.07
HDFC Bk	1618.15	-14.75	1722.1	1271.6	-	28.75	110463.97
Hind Unilevr	2460	-17.85	2734	1927	1.24	69.08	70785.55
HsngDevFin	2659.25	-37.95	2964.05	2026	0.83	23.73	59184.85
ICICI Bk	919.80	6.20	943.25	642.15	0.21	30.59	78531.84
Infosys	1587.4	-15.40	1923.3	1360	1.82	32.87	81801.57
ITC	343.70	-0.40	361.45	207.00	2.99	29.93	52209.99
L&T	2029.55	25.95	2059	1456.35	0.85	35.29	34928.11
OilNatGas	143.20	0.30	189.80	119.85	6.07	4.25	22062.29
RelianceIn	2599.05	6.70	2856.15	2222	0.26	31.17	215359.22
SBI NewA	599.05	-0.70	622.70	430.70	0.64	17.51	65474.08
SunPhrmInds	1013.35	-5.30	1070.95	733.70	0.71	39.58	29776.09
Tata Cons	3349	-6.35	3920	2950.1	1.04	33.53	150072.41
Israel (ILS)							
TevaPha	31.32	-1.30	37.23	23.83	-	27.34	10132.25
Italy (€)							
Enel	5.00	-0.14	7.25	3.96	7.02	24.29	52508.46
ENI	14.09	-0.27	14.85	10.43	4.58	6.19	52461.95
Generali	17.00	-0.08	21.55	13.67	8.28	9.97	27755.67
IntSPaolo	2.18	-0.01	2.92	1.58	1.61	70.51	43714.07
Unicred	13.02	0.03	15.93	7.75	0.88	20.18	30079.74
Japan (¥)							
AstellasPh	2067.5	7.00	2205	1739	2.36	30.03	26999.74
Bridgestne	5240	-31.00	5509	4042	3.36	11.50	26602.49
Canon	3134	4.00	3516	2467	3.31	14.63	29734.07
CntJpRwy	16410	510.00	17920	14660	0.84	-29.69	24046.52
Denso	7594	8.00	9575	6549	1.96	20.08	42564.05
EastJpRwy	7858	224.00	8280	6373	1.35	-7.61	21125.29
Fanuc	20670	-230.00	25300	18740	2.32	23.72	29687.49
FastRetail	82460	-890.00	88230	54310	0.68	37.35	62219.62
Fuji Hvy Ind	2228	-35.00	2684	1664.5	2.67	24.70	12190.38
Hitachi	7249	44.00	7460	4750	1.68	10.25	49944.36
HondaMtr	3301	-12.00	3755	3043	4.15	6.74	42534.68
JapanTob	2762	25.00	2824	2000	5.25	13.57	39294.36
KDDI	4064	28.00	4636	3237	3.13	13.14	66568.67
Keyence	59590	-780.00	74710	44880	0.36	48.05	103092.51
MitsbCp	4342	-39.00	4845	3383	3.37	9.35	45530.94
MitsubEst	996.50	2.29	1001.25	876.51	-	-	-
MitsubishiEle	1367.5	-4.50	1524	1225.5	3.11	11.79	20887.03
MitsuiFud	963.94	0.56	968.13	684.38	-	-	-
MitUFJFin	717.70	-1.80	828.30	601.40	3.85	7.02	67808.3
Mizuho Fin	1627	20.50	1683.5	1397	5.09	7.50	29387.96
Murata Mfg	7711	-81.00	9410	6604	1.65	14.93	37068.02
Nippon T&T	3760	8.00	4128	3054	2.96	11.42	96875.58
NipponTT	3760	8.00	4128	3054	2.96	11.42	96875.58
Nissan Mt	488.80	-9.20	654.30	436.50	-	14.97	14675.51
Nomura	493.40	2.20	562.20	460.30	4.95	-32.01	11349
Nppn Stl	2192	-29.50	2318.5	1690.5	3.87	3.26	14817.93
Panasonic	1230	16.00	1402	1006.5	2.16	11.73	21471.69
Seven & I	5575	42.00	6083	4552	1.96	20.01	35153.74
ShnEtsuCh	17330	-355.00	20480	14185	1.78	15.66	50659.32
Softbank	6319	-9.00	7180	4210	0.74	5.12	77445.89
Sony	11195	-195.00	14745	9213	0.57	13.48	100425.45
SumitomoF	4568	93.00	4568	3672	4.65	8.38	44669.15
Takeda Ph	3895	44.00	4063	2993	4.91	13.18	43839.9
TokioMarine	2666	-1.50	2848	1886	8.76	4.09	38687.15
Toyota	1993.5	-2.50	2375.5	1805	2.72	8.48	231355.33
Mexico (Mex$)							
AmerMvl	19.30	0.14	21.44	15.66	1.67	15.77	42151.75
FEMSA UBD	153.57	3.26	169.96	120.63	1.31	126.88	17069.57
WalMrtMex	72.35	-0.62	82.93	64.81	0.69	36.43	64974.58
Netherlands (€)							
ASML Hld	565.00	6.30	777.50	376.10	0.57	45.56	237225.57
Heineken	87.16	-0.16	100.95	77.50	1.08	15.78	51858.68
ING	11.29	0.07	14.00	7.90	5.09	9.59	43458.94
Unilever	46.28	-0.17	48.81	39.36	3.10	23.76	138191.29
Norway (Kr)							
DNB	182.00	-3.55	220.50	168.05	9.59	11.59	27903.32
Equinor	349.55	-7.65	410.95	217.70	1.41	15.03	109133.48
Telenor	97.28	-0.10	148.80	88.54	9.28	16.38	13385.17
Qatar (QR)							
QatarNtBk	19.14	-0.26	27.00	18.40	2.57	15.85	48543.99
Saudi Arabia (SR)							
AlRajhiBnk	84.60	0.20	117.40	78.60	2.49	16.31	90031.12
Natnlcombnk	53.80	0.10	82.00	52.70	2.37	20.54	64095.67
SaudiBasic	84.00	-0.60	141.40	83.00	3.40	12.43	67044.45
SaudiTelec	38.00	0.20	48.88	37.10	9.25	7.64	50549.4
Singapore (S$)							
DBS	35.61	0.54	37.49	29.45	3.07	15.50	66484.78
JardnMt US$	47.18	-1.27	62.10	42.60	3.17	9.03	13678.63
OCBC	12.47	0.05	13.54	10.98	2.99	13.20	40652.22
SingTel	2.79	-0.01	2.88	2.31	2.38	50.01	33410.75
UOB	30.16	0.32	33.33	25.47	2.92	14.25	36639.86
South Africa (R)							
Firstrand	64.43	-0.11	79.34	53.25	3.87	12.11	20748.88
MTN Grp	129.91	0.65	211.49	115.46	-	18.40	14053
Naspers N	2579.68	-30.52	2853.25	1392.5	0.22	14.41	64498.26
South Korea (KRW)							
HyundMobis	211000	-5000.00	265500	189500	1.86	8.40	14855.81
KoreaElePwr	19550	-100.00	25100	16500	6.15	-11.65	9371.91
SK Hynix	87700	-3800.00	134000	80400	1.72	6.40	47676.37
SmsungEl	61400	-1300.00	80800	51800	2.30	10.85	273714.41
Spain (€)							
BBVA	5.33	-0.03	6.12	3.97	6.67	7.58	33212.07
BcoSantdr	2.53	-0.05	3.48	2.32	2.90	5.29	43881.25
CaixaBnk	3.32	0.04	3.64	2.22	0.78	22.79	27634.8
Iberdrola	10.49	0.01	11.49	8.47	3.85	18.79	68937.49
Inditex	23.62	-0.24	32.24	18.55	0.90	26.02	76041.04
Repsol	13.83	-0.27	16.23	9.60	4.15	8.81	20748.51
Telefonica	3.50	0.01	5.06	3.24	9.47	2.67	20861.49
Sweden (SKr)							
AtlasCpcoB	115.64	0.54	133.60	22.08	6.47	7.60	16927.98
Ericsson	64.12	0.45	117.32	58.81	3.59	9.31	18475.64
H & M	115.38	-2.50	191.86	98.25	5.59	15.66	15805.64
Investor	189.54	0.20	228.75	158.22	1.89	8.03	32386.42
Nordea Bk	107.64	-0.22	113.78	85.25	13.90	12.37	37709.97
SEB	117.55	-3.20	139.45	91.64	8.79	9.68	23752.64
SvnskaHn	105.35	-1.10	107.45	80.88	4.86	10.18	19214.67
Swedbank	165.55	-1.40	194.82	124.50	9.00	8.71	17575.45
Telia Co	29.14	-0.03	41.70	27.93	7.03	10.12	11176.43
Volvo	188.80	-0.32	218.65	148.24	3.52	12.11	28126.01
Switzerland (SFr)							
ABB	29.05	-0.13	33.86	23.84	2.61	14.53	59774.68
CredSuisse	4.12	0.00	9.59	3.52	2.21	-6.75	11437.47
Nestle	109.88	1.42	128.90	103.42	2.28	19.90	316458.09
Novartis	79.08	0.04	88.42	73.01	3.48	8.96	199074.49
Richemont	114.65	0.05	146.10	90.28	1.56	28.51	62677.18
Roche	306.80	-5.35	404.20	298.60	2.61	21.44	225738.32
Swiss Re	79.28	0.42	102.20	68.18	6.80	19.97	26361.4
Swisscom	494.40	2.10	587.40	443.40	4.06	15.34	26821.89
UBS	17.26	-0.05	19.90	13.10	1.83	9.27	63711.81
Zurich Fin	437.80	4.50	461.70	376.00	4.17	15.21	68986.19
Taiwan (NT$)							
Chunghwa Telecom	108.00	-0.50	132.50	105.50	3.88	24.03	26889.79
Formosa PetChem	83.60	0.40	103.50	75.20	0.69	16.46	25559.96
HonHaiPrc	101.50	-	116.00	99.50	3.86	10.46	45161.33
MediaTek	725.00	-4.00	1200	533.00	5.00	10.54	37217.65
TaiwanSem	485.00	-2.00	650.00	370.00	2.16	19.73	403640.85
Thailand (THB)							
PTT Explor	33.00	-0.50	41.25	32.75	5.72	9.32	26277.67
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	3142	-99.00	4292.5	2487.5	5.67	6.22	51984.18
AscBrFd	1522	-6.50	2063	1223	0.41	25.16	14192.83
AstraZen	10814	66.00	11540	8090.32	1.91	1831.02	161317.57
Aviva	448.20	5.30	606.58	341.92	4.76	58.97	21187.26
Barclays	156.66	2.26	209.45	132.06	1.91	3.80	31487.59
BP	478.65	-2.70	503.30	310.53	3.29	17.37	112369.24
BrAmTob	3287	30.50	3645	2514	6.56	11.12	72186.86
BT	120.05	-0.80	201.40	113.80	-	11.66	14030.26
Compass	1847.5	-3.50	1970.5	1435	0.76	44.95	35789
Diageo	3652.5	7.00	4097	3282.5	1.99	28.10	108307.35
GlaxoSmh	1354.4	-20.00	2753.96	1280.92	5.91	15.64	78456.77
Glencore	511.90	-5.40	548.30	346.40	1.73	18.74	86976.28
HSBC	481.20	5.70	567.20	409.85	3.36	10.51	113644.95
Imperial Brands	2109	56.00	2164	1434.23	6.55	7.05	23692.61
Jardine Mathes.	62.50	-	60.50	47.18	2.39	11.96	18120.27
LlydsBkg	44.42	1.29	56.00	38.10	5.79	6.17	37708.57
LSE Group	8036	40.00	8612	6230	0.95	82.17	32750.93
Natl Grid	1005.5	-5.50	1271.45	844.29	4.89	23.44	39754.39
Natwest Group	253.00	6.10	284.42	196.92	4.15	9.96	35659.61
Prudential	997.60	11.80	1504	782.40	1.18	16.20	30402.42
ReckittB	5796	12.00	6824	5400	3.01	-25.08	48076.75
RELX	2260	-20.00	2634.82	2056	2.11	29.82	51004.42
RioTinto	5367	-11.00	6343	4354	9.36	5.61	84788.78
RollsRoyce	86.60	-0.62	161.91	64.44	-	58.91	1897.15
Shell PLC	2364.5	-6.00	2527	1534.2	2.56	12.46	128036.67
StandCh	584.80	11.20	641.00	406.20	1.52	13.11	22709.39
Tesco	226.50	0.60	304.10	194.35	4.04	11.53	21844.34
Unilever	4058	-6.50	4178	3267.5	3.57	20.83	58877.36
Vodafone	96.42	-0.74	141.60	94.61	8.02	-215.70	30294.24
WPP	856.60	3.40	1231.5	713.00	3.09	16.32	12774.9
United States of America ($)							
21stC Fox A	30.48	-0.01	44.95	28.02	1.34	14.19	9219.64
3M	126.22	-1.04	183.87	107.07	4.08	14.34	69764.45
AbbottLb	102.36	-1.25	142.60	93.25	1.53	29.87	178472.21
Abbvie	151.73	-0.14	175.91	115.01	2.98	27.05	268331.55
Accenture	286.16	-5.35	417.37	242.95	1.12	33.41	190234.35
Activision Bli.	73.64	-0.71	82.00	56.40	0.56	24.62	57632.53
Adobe	335.92	-2.49	699.54	274.73	-	38.00	156169.21
Advanced Micro	74.28	1.58	164.46	54.57	-	33.23	119765.82
AEP	88.90	-0.84	105.60	80.22	2.93	20.61	45682.48
Aflac	70.52	-0.30	71.37	52.07	1.63	12.69	43845.42
AirProd	291.43	-3.70	307.43	216.24	1.79	35.20	64637.77
Allstate	133.58	1.27	144.46	106.11	2.11	9.05	35426.69
Alphabet	98.68	-0.17	151.55	83.34	-	1.01	589415.64
Altria	43.50	-0.08	57.05	40.35	7.04	37.33	77959.51
Amazon	96.30	-0.82	188.11	85.87	-	1.71	982419.3
AmerAir	13.84	-0.25	21.42	11.65	-	-4.25	8995.28
AmerExpr	150.10	-2.47	199.55	130.65	1.08	16.76	112159.63
AmerIntGrp	59.44	-0.43	65.73	47.05	1.87	6.32	44162.73
AmerTower	216.74	-2.41	291.99	178.17	2.09	44.03	100915.36
Amgen	286.50	2.73	296.67	198.64	2.14	32.05	152870.44
Amphenol Corp	78.29	-0.81	88.45	61.67	0.87	35.87	46589.95
Analog Devices	160.63	-0.64	191.95	133.48	1.51	62.02	82618.68
Anthem	482.58	12.71	-	-	-	-	-
Aon Cp	292.64	-0.82	341.98	246.21	0.59	60.63	60533.44
Apple	150.01	1.22	182.13	129.04	0.50	28.61	2386375.19
Applied Materi.	105.39	1.17	167.06	71.12	0.78	16.72	90668.01
Aptiv	105.99	-2.91	179.40	77.96	-	62.82	28716.59
ArcherDan	94.34	-0.85	98.88	61.80	1.36	22.65	51824.19
AT&T	18.83	-0.10	21.53	14.46	9.61	7.85	134201.41
Autodesk	215.82	-5.32	335.48	163.20	-	109.74	46586.7
AutomData	252.89	-0.74	261.59	192.26	1.32	45.01	104903.72
AutoZone	2420.5	-30.01	2560.01	1703.32	-	25.15	45944.54
Avago Tech	512.53	0.80	677.76	415.07	2.55	33.28	207575.4
BakerHu	29.40	-0.83	39.78	20.42	2.19	78.25	29443.15
Bank of NY	43.83	0.02	64.63	36.22	2.58	12.17	35426.91
BankAm	37.12	-0.24	50.11	29.31	1.83	11.96	297792.68
Baxter	54.26	-0.69	89.70	49.83	1.74	24.66	27351.07
BectonDick	220.31	-1.78	277.29	215.90	1.33	43.83	62829.91
BerkshHat	461527.01	-3992.99	544389.26	393012.25	-	8.93	275451.32
Biogen	299.51	-0.50	305.48	187.16	-	33.12	43129.86
BlackRock	717.87	-9.16	946.34	503.12	2.00	21.60	107821.47
Boeing	171.49	-1.20	231.50	113.02	-	-27.58	101832.68
Booking Holdings	1925.74	-88.04	2715.66	1616.85	-	78.61	74698.27
Bristol-Myers	77.17	1.02	81.17	53.22	2.27	28.44	164075.79
Broadcom	512.53	0.80	677.76	415.07	2.55	33.28	207575.4
Cadence Design	165.68	-3.18	194.97	132.32	-	76.20	45448.67
CapOne	98.80	-2.96	160.54	90.27	1.76	4.22	37711.82
CardinalHlth	76.23	1.05	81.57	45.85	2.23	45.42	19982.48
Carnival	9.44	-0.19	23.86	6.11	-	-1.29	10503.95
Caterpillar	228.01	-4.41	239.85	160.60	1.63	22.16	118658.54
Centene Corp	82.12	2.61	98.53	69.51	-	41.42	46501.25
CharlesSch	77.91	0.50	96.24	59.35	0.80	31.66	141472.54
Charter Comms	383.10	-5.81	703.65	297.66	-	18.00	59637.97
Chevron Corp	181.79	-1.78	189.68	110.73	2.54	25.68	351524.08
Chipotle Mexic.	1507.01	-19.55	1839	1196.28	-	75.67	41775.85
Chubb	209.35	2.07	218.99	173.78	1.32	12.49	86890.77
Cigna	310.78	4.09	331.05	191.74	1.12	22.72	95017.57
Cintas Corp	442.52	-3.19	461.44	343.86	0.71	44.61	44935.84
Cisco	46.06	1.67	64.29	38.61	2.82	18.80	189232.82
Citigroup	48.04	-0.34	69.11	40.01	3.69	5.45	93036.73
CME Grp	173.92	-0.97	256.94	166.58	1.80	27.43	62563.37
Coca-Cola	60.46	-0.06	67.20	52.28	2.42	30.90	261460.07
Cognizant	59.13	-0.28	93.47	51.33	1.41	16.79	30388.17
ColgtPlm	75.25	-0.76	85.18	67.84	2.07	33.93	62849.87
Comcast	33.98	-0.01	53.79	28.39	2.56	12.85	146566.94
ConocPhil	128.49	-0.76	138.49	66.06	1.32	24.34	160101.44
Constellation	242.00	-1.22	261.53	207.59	1.10	-1252.98	39016.33
Corning	32.97	-0.24	43.47	28.98	2.53	29.62	27886.4
Corteva	64.74	-0.62	68.43	43.74	0.72	31.40	46252.64
Corteva	64.74	-0.62	68.43	43.74	0.72	31.40	46252.64
Costco	516.11	-8.01	612.27	406.51	0.54	47.37	228430.21
CrownCstl	133.64	-1.98	208.69	121.71	3.55	57.55	57870.37
CSX	30.76	-0.48	38.63	25.80	1.10	19.54	64670.09
CVS	95.56	-0.54	111.25	86.28	1.82	18.47	125562.68
Danaher	259.51	-6.65	331.69	233.71	0.30	34.05	188913.6
Deere	406.20	-0.21	446.76	283.81	0.84	25.65	122597.62
Delta	33.93	-0.19	46.27	27.20	-	46.82	21755.52
Devon Energy	69.12	-2.22	79.40	35.55	2.48	18.97	45185.84
Digital Realty	108.84	-1.01	176.53	85.76	3.71	21.07	31293.92
DiscFinServ	106.83	0.71	129.12	87.64	1.53	6.89	29188.71
Disney	91.96	-1.99	158.89	86.28	-	61.48	167648.39
Dollar General	253.56	-2.64	262.21	183.25	0.58	28.40	57194.84
DominRes	58.41	-1.20	88.78	57.95	3.75	21.05	48671.6
DukeEner	95.29	-1.65	116.33	83.76	3.56	22.23	73379.28
DuPont	68.92	-0.22	84.08	49.52	1.51	24.53	34236.21
Eaton	160.71	-1.03	174.91	122.50	1.65	34.61	63914.37
eBay	45.20	-0.29	76.41	35.92	1.39	136.77	24528.19
Ecolab	147.43	-2.37	238.93	131.04	1.15	43.36	41992.2
Edwards Lifesc.	73.81	-1.22	131.73	67.13	-	35.66	45633.81
Eli Lilly	359.29	6.36	369.80	231.87	0.82	67.51	341389.42
Emerson	94.31	-0.92	100.00	72.41	1.87	23.68	55774.93
EOG Res	141.29	-2.16	150.88	80.67	0.99	20.33	82992.26
Equinix	641.44	-6.46	847.10	494.89	1.56	133.38	59357.19
EquityResTP	61.53	-0.02	94.32	59.32	3.41	20.65	23253.35
Exelon	37.33	-0.73	50.71	29.10	3.56	24.67	37096.39
ExxonMb	111.73	-1.18	114.66	57.96	2.72	23.84	460136.92
Fedex	170.16	-0.62	260.50	141.92	1.47	10.52	44277.7
Fidelity NIS	61.69	-0.23	122.06	56.53	2.20	105.87	36605.58
Fiserv	98.29	-1.69	110.94	87.03	-	56.79	62416.91
FordMtr	13.73	-0.17	25.87	10.61	0.63	3.55	54228.58
Franklin	25.88	-0.56	35.53	20.24	3.80	7.87	12928.58
GenDyn	243.97	-0.90	254.99	188.64	1.66	24.29	66981.71
GenElectric	84.56	-0.34	103.88	59.93	0.33	-29.92	92396.02
GenMills	79.16	0.10	82.10	61.41	2.26	24.05	46984.28
GenMotors	38.06	-0.41	67.21	30.33	-	6.53	54071.72
GileadSci	83.32	0.44	84.14	57.17	2.96	19.43	104503.6
GoldmSchs	380.26	-2.07	407.48	277.84	1.49	7.35	128769.19
Halliburton	36.70	-1.15	43.99	20.77	0.62	23.71	33325.32
HCA Hold	227.58	-3.42	279.02	164.47	0.73	12.37	64340.67
Hew-Pack	28.78	-0.52	41.47	24.08	2.54	5.97	28945.89
Hilton Worldwi.	137.37	-1.02	167.99	108.41	-	108.19	37151.19
HiltonWwde	137.37	-1.02	167.99	108.41	-	108.19	37151.19
HomeDep	309.00	-5.91	420.61	264.51	1.88	22.66	316331.47
Honywell	214.13	0.13	221.29	166.63	1.53	31.13	143964.36
HumanaInc	528.51	10.91	571.30	363.73	0.46	26.81	66908.9
IBM	144.92	0.40	146.16	114.56	3.93	31.98	131025.99
IDEXX Laborato.	410.78	-15.30	664.70	317.06	-	54.92	34019.55
IllinoisTool	223.45	-4.20	248.11	173.52	1.84	30.19	68640.8
Illumina	225.55	-6.24	397.44	173.45	-	51.46	35479.02
Intcntl Exch	103.24	-0.78	138.46	88.60	1.11	16.53	57664.87
Intel	29.80	0.27	55.00	24.59	4.06	7.05	122963.97
Intuit	381.91	-11.75	716.86	339.36	0.58	54.99	107648.93
John&John	173.94	0.48	186.69	155.72	2.09	25.61	454763.28
JohnsonCn	65.37	-0.45	81.69	45.52	1.53	34.32	45027.53
JPMrgnCh	132.65	-0.47	169.44	101.28	2.49	9.93	389089.63
Kimb-Clark	128.19	-0.82	144.53	108.74	3.20	27.66	43263.11
KinderM	18.14	-0.27	20.20	15.01	5.33	45.06	40774.04
KLA Corp	374.54	4.12	442.44	250.20	0.91	22.17	53079.18
Kraft Heinz	37.65	-0.05	44.87	32.73	3.70	52.79	46112.5
Kroger	48.04	0.21	62.78	40.18	1.43	25.22	34387.34
LasVegasSd	44.06	0.15	48.27	28.88	-	-33.55	33669.17
LibertyGbl	19.50	-0.34	29.27	15.22	-	0.96	3352.09
Lilly (E)	359.29	6.36	369.80	231.87	0.82	67.51	341389.42
Linde	330.27	-3.46	346.50	262.47	1.12	51.88	163278.73
Lockheed	472.01	5.77	494.66	328.20	2.05	23.30	123700.22
Lowes	207.92	-7.22	263.31	170.12	1.27	19.67	129052.96
Lyondell	80.61	-2.08	117.22	71.46	4.79	5.53	26248.59
Marathon Ptl	118.58	-1.28	123.12	59.55	1.70	67.50	55573.8
Marsh&M	164.38	-1.13	183.14	142.80	1.42	29.07	81534.04
MasterCard	340.00	-2.76	399.92	276.87	0.58	44.63	324293.03
McDonald's	272.95	0.44	281.67	217.68	1.67	31.26	199911.44
McKesson	364.22	1.02	401.78	215.27	0.43	47.43	51644.02
Medtronic	80.30	-1.48	118.80	79.20	2.70	25.20	106731.01
Merck	102.14	2.21	103.76	71.50	2.25	24.17	258965.34
Meta	196.64	0.99	384.33	169.00	-	15.41	450997.53
Metlife	74.46	0.10	75.63	57.05	2.22	11.71	58421.78
Microsoft	242.65	0.92	349.67	213.43	0.82	29.71	1808827.91
Mnstr Bvrg	98.91	-0.28	100.47	71.78	-	44.25	51605.66
MondelezInt	64.23	-0.77	69.47	54.72	1.80	24.30	87713.68
Monsanto	10.00	-0.01	10.01	9.66	-	52.69	249.88
MorganStly	88.51	-1.31	109.73	72.05	2.06	12.67	149591.58
Netflix	295.75	-10.27	700.99	162.71	-	30.26	131614.81
NextEraE	82.48	-1.84	92.91	67.22	1.71	124.59	163901.26
Nike	104.03	-1.20	177.75	82.22	0.98	31.27	131457.79
NorfolkS	244.49	-5.23	296.87	203.65	1.48	23.22	56602.91
Northrop	510.96	5.83	556.27	345.90	1.05	13.49	78642.96
NXP	168.45	1.57	239.91	132.08	1.16	28.53	43651.89
Occid Pet	70.37	-1.57	77.13	26.05	0.05	39.28	63955.74
Oracle	78.87	-1.03	106.34	60.78	1.42	34.29	212633.16
Pepsico	178.71	0.38	183.58	153.37	2.07	37.43	246210.41
Perrigo	32.48	-0.33	43.90	31.32	2.57	-38.10	4372.43
Pfizer	48.10	0.05	61.71	41.45	2.82	14.07	270000.43
Phillips66	107.40	-0.28	113.53	67.08	2.93	41.58	50760.7
PhilMorris	93.86	-0.85	112.48	82.85	4.54	18.51	145501.99
PNCFin	158.78	-2.87	214.50	143.52	2.63	14.38	64039
PPG Inds	126.11	-2.88	172.78	107.06	1.64	31.82	29639.3
ProctGmbl	140.87	-0.87	165.35	122.18	2.21	27.53	336045.31
Prudntl	106.32	-1.42	124.22	85.46	3.76	6.27	39125.76
PublStor	291.23	0.13	421.76	270.73	2.39	33.93	51151.17
Qualcomm	121.98	1.25	192.68	101.93	1.92	16.07	136739.58
Raytheon	93.42	-0.38	106.02	79.00	1.87	41.64	137333.08
Regen Pharm	735.67	-	769.63	538.01	-	11.75	78778.33
S&P Global	345.84	-7.83	484.21	279.32	0.77	31.79	112674.67
Salesforce	150.40	-4.73	309.90	136.04	-	115.75	150395
Schlmbrg	51.88	-1.11	56.04	27.65	0.84	45.19	73565.52
Sempra Energy	153.30	-4.11	176.47	119.56	2.50	43.96	48187.3
Shrwin-Will	236.12	-4.09	354.15	195.24	0.81	38.90	61188.94
SimonProp	114.26	-1.34	171.12	86.02	5.44	19.21	37355.19
SouthCpr	58.20	-1.12	79.32	42.42	4.78	15.24	44994.33
Starbucks	96.19	-0.88	117.34	68.39	1.66	29.89	110368.41
StateSt	76.13	-2.78	103.76	58.62	2.49	12.18	27935.15
Stryker	218.94	-2.32	279.28	188.84	1.03	48.32	82853.45
Sychrony Fin	34.73	-0.47	50.30	27.22	2.27	5.26	15645.05
T-MobileUS	147.76	2.88	154.38	101.51	-	70.50	183836.21
Target	159.68	4.21	257.17	137.16	1.74	12.90	73494.74
TE Connect	123.38	-1.82	166.37	104.76	1.40	19.28	39461.73
Tesla Mtrs	184.77	-2.15	400.65	177.12	-	43.36	583457.92
TexasInstr	174.25	0.79	199.90	144.46	2.10	24.26	158144.37
TheTrvelers	183.57	2.43	187.98	145.40	1.72	13.01	43019.18
ThrmoFshr	526.21	-9.80	668.94	475.77	0.17	31.09	206377.22
TJX Cos	76.73	-2.29	79.40	53.69	1.19	32.37	89087.59
Truist Financial Corp	45.01	-0.52	66.10	40.01	3.59	11.58	59717.75
Twitter	53.70	0.35	60.16	31.30	-	-224.30	41093.72
UnionPac	208.71	-3.56	278.94	183.70	1.93	22.18	128315.07
UPS	174.78	-2.28	233.72	154.87	2.03	13.69	127558.1
USBancorp	42.52	-0.42	60.60	38.39	3.60	9.59	63169.79
UtdHlthcre	525.65	14.13	558.10	436.00	0.93	33.43	491140.59
ValeroEngy	135.37	-0.16	146.81	65.13	2.52	68.57	52188.29
Verizon	37.83	-0.06	55.51	34.55	5.83	8.18	158858.09
VertexPharm	309.25	3.81	318.38	179.96	-	39.47	79381.83
VF Cp	31.84	-0.33	78.17	26.46	5.38	12.01	12373.73
Visa Inc	209.98	-0.16	235.85	174.60	0.55	39.98	343320.38
Walgreen	40.20	-0.19	53.46	30.39	4.15	6.69	34765.49
WalMartSto	148.54	0.04	160.77	117.27	1.30	34.74	403172.9
Walt Disney	91.96	-1.99	158.89	86.28	-	61.48	167648.39
Waste Manage.	157.57	-0.51	175.98	138.58	1.27	42.23	64678.88
WellsFargo	46.04	-0.17	60.30	36.54	1.46	10.70	175435
Williams Cos	32.92	-0.86	37.97	24.86	4.33	30.52	40101.66
Workday	150.42	-4.97	307.81	128.72	-	1427.80	30234.42
Yum!Brnds	122.95	-1.02	139.85	103.97	1.41	27.13	34632.11
Zoetis	144.21	-4.07	249.27	124.15	0.60	38.83	67212.24
Zoom	82.50	-1.01	266.19	70.44	-	20.88	20704.2
Venezuela (VEF)							
Bco de Vnzla	1.35	0.05	2.14	0.32	137.54	-	515.60
Bco Provncl	3.20	0.03	3.30	1.70	-	0.00	125.66

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
PingAnIns	44.10	44.45	-0.35	-0.79	8.65	24.4	15.47
Tencent	292.00	294.40	-2.40	-0.82	55.20	23.3	17.58
SHOP	49.99	51.34	-1.35	-2.63	8.22	19.7	32.21
Ch OSLnd&Inv	20.00	19.96	0.04	0.20	3.28	19.6	-1.72
China Vanke	13.34	13.34	0.00	0.00	1.98	17.4	-3.62
ChinaMBank	35.45	37.25	-1.80	-4.83	5.25	17.4	15.99
Naspers N	2579.68	2610.20	-30.52	-1.17	377.89	17.2	14.25
HK Exc&Clr	303.40	304.80	-1.40	-0.46	43.40	16.7	22.79
SandsCh	19.96	20.00	-0.04	-0.20	2.80	16.3	22.66
TaiwanSem	485.00	487.00	-2.00	-0.41	68.00	16.3	17.72
ChinaPcIns	16.64	16.54	0.10	0.60	1.90	12.9	16.20
AIA	76.40	76.05	0.35	0.46	8.35	12.3	12.82
Siemens	129.16	121.12	8.04	6.64	13.40	11.6	12.02
MediaTek	725.00	729.00	-4.00	-0.55	75.00	11.5	23.93
Vale	81.36	82.44	-1.08	-1.31	8.21	11.2	14.61
ChinaLife	10.62	10.52	0.10	0.95	1.00	10.4	8.15
Brookfield	60.34	61.08	-0.74	-1.21	5.48	10.0	12.35
MitsuiFud	963.94	963.38	0.56	0.06	87.11	9.9	17.98
New Ch Life Ins	16.28	16.20	0.08	0.49	1.46	9.9	11.97
SAP	107.74	106.84	0.90	0.84	9.58	9.8	9.94

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
CapOne	98.80	101.76	-2.96	-2.91	-14.62	-12.9	1.47
Cielo	4.81	5.05	-0.24	-4.75	-0.62	-11.4	-16.03
Sychrony Fin	34.73	35.19	-0.47	-1.32	-4.01	-10.3	7.96
Softbank	6319.00	6328.00	-9.00	-0.14	-700.00	-10.0	11.79
Fuji Hvy Ind	2228.00	2263.00	-35.00	-1.55	-238.00	-9.7	-2.84
Vodafone	96.42	97.16	-0.74	-0.76	-9.34	-8.8	-3.26
AmerAir	13.84	14.09	-0.25	-1.77	-1.09	-7.3	4.85
Roche	306.80	312.15	-5.35	-1.71	-23.70	-7.2	-6.00
Ambev	15.37	15.44	-0.07	-0.45	-1.11	-6.7	2.95
DominRes	58.41	59.61	-1.20	-2.01	-3.96	-6.3	-10.49
BOC Hold	24.00	24.70	-0.70	-2.83	-1.60	-6.3	-6.59
Illumina	225.55	231.79	-6.24	-2.69	-14.54	-6.1	8.88
PTT Explor	33.00	33.50	-0.50	-1.49	-2.00	-5.7	-4.35
BlackRock	717.87	727.03	-9.16	-1.26	-41.94	-5.5	26.00
ItauHldFin	22.36	22.60	-0.24	-1.06	-1.29	-5.5	-7.41
MTN Grp	129.91	129.26	0.65	0.50	-7.39	-5.4	5.35
HumanaInc	528.51	517.60	10.91	2.11	-29.80	-5.3	5.96
Intuit	381.91	393.66	-11.75	-2.98	-21.33	-5.3	-5.38
USBancorp	42.52	42.93	-0.42	-0.97	-2.36	-5.2	-0.23
TokioMarine	2666.00	2667.50	-1.50	-0.06	-142.50	-5.1	2.36

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Nov 17	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

Nov 17	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

Nov 17	Rate	Current	Since	Last
US	Fed Funds	3.00-3.25	21-09-2022	2.25-2.5
US	Prime	6.25	22-09-2022	5.50
US	Discount	3.25	22-09-2022	2.50
Euro	Repo	0.53	01-11-2022	0.374
UK	Repo	3.00	02-11-2022	2.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Nov 17 (Libor: Nov 16)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	3.81729	0.004	0.002	0.007	3.91071	4.67429	5.08200	5.46486
Euro Libor	-0.64957	-0.064	0.000	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	0.000	0.023	2.98310	3.56000	4.13490	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.04097	0.03035	0.04867
Euro Euribor				-0.019	1.39500	1.80300	2.31100	2.84300
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.030	3.92000	4.56000	4.98000	
Euro CDs				0.000	1.39000	1.86000	2.17000	

Nov 17	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	1.15	1.45	1.19	1.49	1.24	1.54	1.71	2.01	2.02	2.32	2.41	2.71
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	3.63	3.83	3.65	3.85	3.82	4.02	4.46	4.66	4.88	5.08	5.14	5.34
Japanese Yen	-0.15	0.05	-0.20	0.00	-0.20	0.00	-0.15	0.05	-0.10	0.20	-0.05	0.25

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	195.29	-0.23	4.33	-11.15	4.13	-10.85
Corporates(£)	327.63	0.95	3.86	-17.22	11.16	-17.53
Corporates(€)	209.01	0.36	1.87	-13.46	2.95	-13.86
Eurozone Sov(€)	215.57	0.71	1.50	-15.27	3.24	-16.13
Gilts(£)	284.64	1.50	3.93	-20.82	14.52	-20.85
Overall(£)	290.95	1.33	3.76	-19.62	13.11	-19.72
Overall(€)	210.20	0.58	1.60	-14.79	3.10	-15.50
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	600.49	-8.44	-	-	5.74	-24.96
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES

	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	487.84	10.38	-0.42	-109.16	688.92	465.00
Europe 5Y	98.70	2.59	-0.87	-26.21	142.08	93.05
Japan 5Y	84.15	2.38	-8.98	-16.78	119.29	81.77
Senior Financials 5Y	108.71	2.99	0.17	-27.80	155.06	102.80
Markit CDX						
Emerging Markets 5Y	249.82	8.80	-29.15	-72.85	335.29	241.02
Nth Amer High Yld 5Y	488.90	2.13	-51.91	-66.40	625.47	486.06
Nth Amer Inv Grade 5Y	83.00	0.30	-9.34	-13.70	110.98	82.70

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	Nov 17	Day Chng	Prev	52 wk high	52 wk low
VIX	24.25	0.14	24.11	38.93	16.28
VXD	22.21	0.65	21.56	45.37	3.27
VXN	30.33	0.28	30.05	44.05	9.94
VDAX	22.91	0.28	22.62	93.30	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility. ‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	11/22	2.25	99.99	2.91	0.00	-0.01	0.20	2.67
	05/32	1.25	80.39	3.72	-0.03	-0.14	-0.29	-
	02/50	1.00	93.11	1.75	0.00	-0.07	-0.32	1.54
Austria	02/29	0.50	88.92	2.43	-0.10	-0.20	-0.32	2.62
	02/47	1.50	78.62	2.71	-0.12	-0.18	-0.53	2.28
Belgium	06/27	0.80	93.94	2.20	-0.09	-0.14	-0.25	2.60
	06/47	1.60	77.05	2.92	-0.12	-0.16	-0.50	2.20
Canada	03/25	1.25	94.47	3.80	-0.02	-0.27	-0.28	2.49
	06/30	1.25	87.94	3.05	-0.09	-0.38	-0.46	1.37
	12/48	2.75	92.50	3.18	-0.10	-0.35	-0.28	1.09
Denmark	11/29	0.50	88.84	2.24	-0.11	-0.16	-0.36	2.37
	11/52	0.25	59.03	2.11	-0.12	-0.19	-0.63	1.78
Finland	09/24	0.00	96.22	2.14	-0.04	-0.04	0.03	2.82
	09/29	0.50	87.44	2.53	-0.10	-0.17	-0.28	2.73
France	05/28	0.75	92.25	2.26	-0.10	-0.14	-0.27	2.52
	05/48	2.00	85.11	2.83	-0.12	-0.18	-0.49	2.14
Germany	08/29	0.00	87.83	1.94	-0.09	-0.15	-0.24	2.34
	08/50	0.00	58.67	1.94	-0.11	-0.16	-0.47	1.88
Greece	01/23	3.50	100.42	1.36	-0.06	-0.07	0.06	1.59
	01/28	3.75	100.40	3.66	-0.05	-0.44	-0.68	3.01
Ireland	-	-	-	-	-	-	-	-
	05/26	1.00	96.07	2.18	-0.09	-0.09	-0.05	2.58
	02/45	2.00	86.66	2.81	-0.14	-0.19	-0.52	2.16
Italy	02/25	0.35	95.01	2.70	-0.04	-0.23	-0.48	2.80
	05/30	0.40	92.80	1.42	-0.09	-0.25	-0.89	2.36
	03/48	3.45	91.30	4.00	-0.12	-0.32	-0.74	2.25
Japan	04/25	0.05	100.02	0.04	0.00	0.00	-0.01	-0.03
	12/29	0.10	99.59	0.16	0.00	-0.03	-0.07	0.18
	12/49	0.40	78.61	1.34	-0.02	-0.08	-0.02	0.68
Netherlands	07/27	0.75	94.06	2.10	-0.08	-0.12	-0.20	2.56
	01/47	2.75	109.25	2.25	-0.12	-0.18	-0.54	2.14
New Zealand	05/31	1.50	81.12	4.16	-0.03	-0.39	-0.31	1.54
	09/40	2.50	120.39	2.29	-0.03	-0.22	-0.40	1.38
Norway	08/30	1.38	88.20	3.11	-0.10	-0.36	-0.51	1.43
Poland	01/23	2.50	99.19	6.93	0.10	-0.50	-0.64	4.32
	07/27	2.50	81.67	7.25	0.05	-0.70	-0.72	4.27
	04/47	4.00	63.24	7.25	0.00	-0.93	0.15	3.73
Portugal	04/27	4.13	107.22	2.38	-0.07	-0.13	-0.18	2.59
Spain	-	-	-	-	-	-	-	-
	10/29	0.60	87.00	2.67	-0.09	-0.19	-0.44	2.47
	10/46	2.90	93.09	3.32	-0.10	-0.17	-0.56	2.18
Sweden	06/30	0.13	115.94	-0.19	-0.03	-0.09	0.05	1.60
	03/39	3.50	121.43	1.96	-0.02	-0.12	-0.12	1.38
Switzerland	04/28	4.00	116.55	0.84	-0.04	0.00	-0.27	1.14
	06/29	0.00	94.50	0.86	-0.04	-0.06	-0.32	1.08
United Kingdom	07/23	0.75	98.54	2.94	-0.11	-0.18	-0.57	2.43
	07/27	1.25	91.70	3.17	-0.15	-0.30	-1.12	2.47
	07/47	1.50	68.42	3.40	-0.18	-0.27	-1.47	2.24
United States	-	-	-	-	-	-	-	-
	03/25	0.50	91.73	4.21	-0.02	-0.33	-0.29	3.23
	02/30	1.50	86.01	3.72	-0.10	-0.44	-0.39	2.18
	02/50	0.25	69.41	1.65	-0.06	-0.31	-0.17	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

GILTS: UK CASH MARKET

Nov 17	Price £	Red Yield	Change in Yield Day	Change in Yield Week	Change in Yield Month	Change in Yield Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.50	3.00	2.74	2.39	-5.96	525.00	100.82	97.34	34.36
Tr 0.125pc '24	96.46	3.15	3.28	0.96	-10.00	462.50	99.44	94.34	35.55
Tr 2pc '25	97.25	3.03	2.36	-0.33	-15.83	422.41	105.86	93.15	39.93
Tr 0.125pc '26	91.11	3.06	2.00	-1.29	-19.47	385.71	98.77	86.33	35.32
Tr 1.25pc '27	91.45	3.23	1.89	-1.22	-17.60	368.12	104.30	85.65	40.99
Tr 0.875pc '29	85.71	3.19	1.92	-2.15	-19.44	279.76	102.36	78.21	43.62
Tr 4.25pc '32	108.65	3.19	1.59	-2.15	-19.85	219.00	135.62	98.13	40.33
Tr 4.25pc '36	108.49	3.45	1.47	-1.43	-19.39	210.81	145.94	94.91	31.68
Tr 4.5pc '42	113.83	3.53	1.15	-1.12	-21.56	201.71	169.96	93.79	28.35
Tr 3.75pc '52	107.50	3.35	1.21	-0.89	-23.52	196.46	180.27	82.51	25.11
Tr 4pc '60	119.31	3.12	1.63	-0.95	-26.42	200.00	213.01	87.32	25.13

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

GILTS: UK FTSE ACTUARIES INDICES

Price Indices **Fixed Coupon**	Nov 17	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.89	-0.16	2354.96	1.63	-4.12	3.15
2 5 - 10 Years	151.42	-0.36	3194.05	5.46	-13.00	3.22
3 10 - 15 Years	163.33	-0.56	3752.64	9.29	-19.28	3.42
4 5 - 15 Years	153.38	-0.41	3328.99	6.50	-14.95	3.30
5 Over 15 Years	238.55	-0.83	4082.85	20.37	-33.43	3.31
7 All stocks	142.11	-0.49	3160.62	9.38	-20.10	3.29

Index Linked	Nov 17	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	326.09	-0.20	1.80	3.66	2757.38	2.07	4.86
2 Over 5 years	591.67	-0.69	21.64	-33.91	4509.86	21.80	-33.61
3 5-15 years	466.36	-0.82	11.38	-13.58	3771.78	11.56	-12.93
4 Over 15 years	691.55	-0.61	28.58	-41.95	5117.41	28.73	-41.77
5 All stocks	553.48	-0.62	18.21	-30.09	4303.82	18.39	-29.71

Yield Indices	Nov 17	Nov 16	Yr ago		Nov 17	Nov 16	Yr ago
5 Yrs	3.10	3.03	0.66	20 Yrs	3.52	3.47	1.21
10 Yrs	3.34	3.28	0.98	45 Yrs	2.97	2.92	0.95
15 Yrs	3.51	3.46	1.16				

Real yield	inflation 0% Nov 17	inflation 0% Dur yrs	inflation 0% Previous	inflation 0% Yr ago	inflation 5% Nov 17	inflation 5% Dur yrs	inflation 5% Previous	inflation 5% Yr ago
Up to 5 yrs	-0.42	1.45	-0.56	-3.37	-1.14	1.45	-1.29	-3.85
Over 5 yrs	-0.01	19.60	-0.05	-2.43	-0.05	19.67	-0.09	-2.46
5-15 yrs	-0.18	8.54	-0.27	-2.97	-0.30	8.55	-0.40	-3.09
Over 15 yrs	0.02	25.91	0.00	-2.37	0.00	25.93	-0.03	-2.39
All stocks	-0.02	16.93	-0.05	-2.44	-0.06	17.03	-0.10	-2.48

See FTSE website for more details www.ftse.com/products/indices/gilts

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COMMODITIES

www.ft.com/commodities

Energy		Price*	Change	Agricultural & Cattle Futures		Price*	Change
Crude Oil†	Dec	84.17	-1.42	Corn♦	Dec	657.25	-8.00
Brent Crude Oil‡		89.89	-2.97	Wheat♦	Dec	802.50	-15.00
RBOB Gasoline†	Dec	2.48	-0.03	Soybeans♦	Jan	1416.50	-12.75
Natural Gas†	Dec	6.26	0.06	Soybeans Meal♦	Dec	405.30	-1.30
Base Metals (♠ LME 3 Months)				Cocoa (ICE Liffe)✠	Dec	2003.00	-5.00
Aluminium		2379.00	-26.00	Cocoa (ICE US)♥	Dec	2472.00	-31.00
Aluminium Alloy		1675.00	-905.00	Coffee(Robusta)✠	Jan	1815.00	23.00
Copper		8123.00	-139.00	Coffee (Arabica)♥	Dec	151.65	-3.80
Lead		2149.00	-11.00	White Sugar✠		532.90	-11.70
Nickel		25820.00	-1090.00	Sugar 11♥		19.94	-0.33
Tin		22770.00	-640.00	Cotton♥	Dec	86.98	-1.46
Zinc		3009.00	-47.00	Orange Juice♥	Jan	199.20	-3.45
Precious Metals (PM London Fix)				Live Cattle♣	Dec	151.88	0.60
Gold		1773.00	1.65	Feeder Cattle♣	May	134.88	-
Silver (US cents)		2195.00	1.00	Lean Hogs♣	Dec	85.60	0.28
Platinum		1017.00	-14.00				
Palladium		2070.00	-14.00				

Bulk Commodities					Nov 16	% Chg Month	% Chg Year
Iron Ore		92.34	0.05	S&P GSCI Spt	623.27	-1.21	8.92
Baltic Dry Index		1228.00	-60.00	DJ UBS Spot	115.09	1.66	12.29
Richards Bay ICE Futures		193.60	-6.50	TR/CC CRB TR	305.19	2.57	20.90
				LEBA EUA Carbon	58.91	-1.98	129.94
				LEBA UK Power	1048.00	-37.43	-39.60

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price Nov 16	Yield Nov 16	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	111.35	1.347	1.345	0.30	5.25	73234.18	8
Fr 0.25%' 24	103.40	-1.723	-1.635	0.73	17.92	252971.17	17
Swe 1.00%' 25	125.47	-0.392	-0.367	0.81	35.38	218751.41	6
UK 0.125%' 24	104.90	-3.403	-3.294	0.71	15.24	611020.99	31
UK 2.50%' 24	380.14	-2.405	-2.310	0.88	6.82	611020.99	31
UK 2.00%' 35	257.93	-0.456	-0.328	7.42	9.08	611020.99	31
US 0.625%' 24	98.04	2.348	2.257	-0.18	40.98	1605126.18	47
US 3.625%' 28	110.18	1.650	1.684	0.86	16.78	1605126.18	47

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.72	1.77	0.00	Netherlands	2.10	0.16	-1.62
Austria	2.43	0.49	-1.29	New Zealand	4.16	2.22	0.44
Canada	3.05	1.11	-0.67	Norway	3.11	1.17	-0.61
Denmark	2.24	0.30	-1.48	Portugal	2.38	0.43	-1.34
Finland	2.53	0.58	-1.19	Spain	2.67	0.73	-1.05
Germany	1.94	0.00	-1.78	Sweden	-0.19	-2.13	-3.91
Italy	1.42	-0.53	-2.30	Switzerland	0.86	-1.08	-2.86
Japan	0.16	-1.79	-3.56	United States	3.72	1.78	0.00

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

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MANAGED FUNDS SERVICE

abrdn Capital (CI) Limited (JER)
PO Box 189, St Helier, Jersey, JE4 9RU 01534 709130
FCA Recognised
abrdn Capital Offshore Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Bridge Fund	£ 2.1808	-	-0.0120	1.91
Global Equity Fund	£ 3.2656	-	-0.0201	1.20
Global Fixed Interest Fund	£ 0.7370	-	0.0027	6.12
Income Fund	£ 0.6286	-	-0.0043	3.31
Sterling Fixed Interest Fund	£ 0.6839	-	0.0038	3.64
UK Equity Fund	£ 1.9407	-	-0.0144	3.88

Algebris Investments (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Algebris Financial Credit I EUR	€ 169.13	-	-0.27	-
Algebris Financial Credit R EUR	€ 145.56	-	-0.23	-
Algebris Financial Credit Rd EUR	€ 89.06	-	-0.14	-
Algebris Financial Income I EUR	€ 174.91	-	-0.50	0.00
Algebris Financial Income R EUR	€ 159.24	-	-0.46	0.00
Algebris Financial Income Rd EUR	€ 97.60	-	-0.28	4.41
Algebris Financial Equity B EUR	€ 158.14	-	-1.49	0.00
Algebris Financial Equity R EUR	€ 133.06	-	-1.26	0.00
Algebris IG Financial Credit I EUR	€ 94.16	-	0.43	-
Algebris IG Financial Credit R EUR	€ 92.73	-	0.43	-
Algebris Global Credit Opportunities I EUR	€ 122.59	-	-0.04	-
Algebris Global Credit Opportunities R EUR	€ 119.70	-	-0.04	-
Algebris Global Credit Opportunities Rd EUR	€ 105.23	-	-0.03	-
Algebris Core Italy I EUR	€ 140.06	-	-1.33	0.00
Algebris Core Italy R EUR	€ 133.01	-	-1.27	0.00

The Antares European Fund Limited
Other International

Fund	Bid	Offer	D+/-	Yield
AEF Ltd Usd	$ 530.46	-	-40.36	0.00
AEF Ltd Eur	€ 490.06	-	-36.24	0.00

Artemis Fund Managers Ltd (1200)F (UK)
57 St. James's Street, London SW1A 1LD 0800 092 2051
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Artemis Corporate Bond I Acc	97.56	-	0.45	3.02
Artemis Positive Future Fund	69.87	-	0.68	0.00
Artemis Target Return Bond I Acc	103.90	-	0.15	2.84

Ashmore Group
61 Aldwych, London WC2B 4AE. Dealing team: +352 27 62 22 233
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Markets Equity Fund	$ 114.16	-	-1.25	0.00
Emerging Markets Equity ESG Fund	$ 129.05	-	-1.22	0.00
Emerging Markets Frontier Equity Fund	$ 174.92	-	0.42	0.40
Emerging Markets Blended Debt Fund	$ 50.83	-	0.08	6.88
Emerging Markets Blended Debt ESG Fund	$ 81.40	-	0.18	0.00
Emerging Markets Active Equity Fund	$ 116.24	-	-1.56	0.00
Emerging Markets Corporate Debt Fund	$ 57.67	-	0.34	9.89
Emerging Markets Debt Fund	$ 55.51	-	0.31	8.44
Emerging Markets Local Currency Bond Fund	$ 59.04	-	-0.18	4.44

Atlantas Sicav (LUX)
Regulated

Fund	Bid	Offer	D+/-	Yield
American Dynamic	$ 6442.86	-	348.92	0.00
American One	$ 6623.94	-	353.97	0.00
Bond Global	€ 1581.48	1581.48	10.04	0.00
Eurocroissance	€ 1326.30	-	76.31	0.00
Far East	$ 977.41	-	91.79	-

Blue Whale Investment Funds ICAV (IRE)
www.bluewhale.co.uk, info@bluewhale.co.uk
FCA Recognised - Ireland UCITS

Fund	Bid	Offer	D+/-	Yield
Blue Whale Growth USD T	$ 8.75	-	-0.17	0.00

Brooks Macdonald International Fund Managers Limited (JER)
5 Anley Street, St Helier, Jersey, JE2 3QE
+44 (0) 1534 700 104 (Int.) +44 (0) 800 735 8000 (UK)
Brooks Macdonald International Investment Funds Limited

Fund	Bid	Offer	D+/-	Yield
Euro High Income	€ 1.2207	-	0.0041	2.50
High Income	£ 0.6576	-	0.0047	3.77
Sterling Bond	£ 1.2516	-	0.0090	2.06

Brooks Macdonald International Multi Strategy Fund Limited

Fund	Bid	Offer	D+/-	Yield
Balanced Strategy A	£ 0.9104	-	-0.0038	0.60
Balanced Strategy	£ 0.9098	-	-0.0037	0.09
Cautious Balanced Strategy A	£ 0.8845	-	-0.0019	1.16
Growth Strategy A	£ 0.9149	-	-0.0050	0.52
High Growth Strategy A	£ 0.9094	-	-0.0067	0.13
Cautious Balanced Strategy	£ 1.2372	-	-0.0027	0.00
Growth Strategy	£ 1.9149	-	-0.0107	0.00
High Growth Strategy	£ 2.6677	-	-0.0196	0.00
US$ Growth Strategy	$ 1.6257	-	-0.0099	0.00

Dealing Daily. Initial Charge Nil for A classes and up to 2% for other classes

CG Asset Management Limited (IRL)
25 Moorgate, London, EC2R 6AY
Dealing: Tel. +353 1434 5098 Fax. +353 1542 2859
FCA Recognised
CG Portfolio Fund Plc

Fund	Bid	Offer	D+/-	Yield
Absolute Return Cls M Inc	£ 136.23	136.23	-0.07	1.36
Capital Gearing Portfolio GBP P	£ 37554.12	37554.12	-23.02	1.05
Capital Gearing Portfolio GBP V	£ 182.64	182.64	-0.12	1.05
Dollar Fund Cls D Inc	£ 168.38	168.38	0.91	1.42
Dollar Hedged GBP Inc	£ 92.92	92.92	0.47	1.71
Real Return Cls A Inc	£ 202.25	202.25	0.93	1.46

Chartered Asset Management Pte Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
CAM-GTF VCC	$ 276934.95	276934.95	-141.90	-
CAM GTi VCC	$ 780.49	-	-32.39	-
RAIC VCC	$ 1.64	1.64	0.03	2.06

Dodge & Cox Worldwide Funds (IRL)
48-49 Pall Mall, London SW1Y 5JG.
www.dodgeandcox.worldwide.com 020 3713 7664
FCA Recognised
Dodge & Cox Worldwide Funds plc - Global Bond Fund

Fund	Bid	Offer	D+/-	Yield
EUR Accumulating Class	€ 15.73	-	-0.03	0.00
EUR Accumulating Class (H)	€ 10.20	-	0.02	-
EUR Distributing Class	€ 11.53	-	-0.03	0.96
EUR Distributing Class (H)	€ 7.41	-	0.01	-
GBP Distributing Class	£ 12.33	-	-0.03	0.87
GBP Distributing Class (H)	£ 7.93	-	0.02	1.16
USD Accumulating Class	$ 11.80	-	0.03	0.00

Dodge & Cox Worldwide Funds plc-Global Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 27.98	-	-0.32	-
GBP Accumulating Share Class	£ 38.63	-	-0.60	0.00
GBP Distributing Share class	£ 26.07	-	-0.41	-
EUR Accumulating Share Class	€ 40.42	-	-0.63	-
GBP Distributing Class (H)	£ 13.01	-	-0.15	0.57

Dodge & Cox Worldwide Funds plc-U.S. Stock Fund

Fund	Bid	Offer	D+/-	Yield
USD Accumulating Share Class	$ 37.80	-	-0.43	0.00
GBP Accumulating Share Class	£ 49.35	-	-0.78	-
GBP Distributing Share Class	£ 29.62	-	-0.47	0.16
EUR Accumulating Share Class	€ 47.14	-	-0.75	0.00
GBP Distributing Class (H)	£ 15.03	-	-0.17	0.20

Dragon Capital
www.dragoncapital.com
Fund information:info@dragoncapital.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Vietnam Equity (UCITS) Fund A USD	$ 21.31	-	0.75	0.00

EdenTree Investment Management Ltd (UK)
PO Box 3733, Swindon, SN4 4BG, 0800 358 3010
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
EdenTree Short Dated Bond Cls B	93.14	-	0.10	-

Euronova Asset Management UK LLP (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Smaller Cos Cls One Shares	€ 53.24	-	2.31	0.00
Smaller Cos Cls Two Shares	€ 33.99	-	1.47	0.00
Smaller Cos Cls Three Shares	€ 16.96	-	0.73	0.00
Smaller Cos Cls Four Shares	€ 22.36	-	0.97	0.00

Fidelity Investments International
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Emerging Mkts NAV	£ 7.21	-	-0.16	2.07

FIL Investment Services (UK) Limited (1200)F (UK)
Beech Gate, Millfield Lane, Lower Kingswood, Tadworth, KT20 6RP
Callfree: Private Clients 0800 414161
Broker Dealings: 0800 414 181
OEIC Funds

Fund	Bid	Offer	D+/-	Yield
Sustainable Multi Asset Balanced Fund W-ACC-GBP	£ 0.92	-	0.00	0.15
Index Sterling Corporate Bond Fund P-ACC-GBP	£ 0.83	-	0.01	2.03
American Fund W-ACC-GBP	£ 52.13	-	-0.48	0.00
Cash Fund W-ACC-GBP	£ 1.03	-	0.00	0.00
Emerg Europe, Middle East and Africa Fund W-ACC-GBP	£ 1.65	-	-0.02	4.94
Sustainable Global Equity Fund W-ACC-GBP	£ 32.78	-	-0.26	0.00
Global High Yield Fund W-ACC-GBP	£ 13.39	-	0.01	5.84
Japan Fund W-ACC-GBP	£ 5.52	-	0.01	-
Japan Smaller Companies Fund W-ACC-GBP	£ 3.51	-	0.01	0.64
Select 50 Balanced Fund PI-ACC-GBP	£ 1.13	-	0.00	1.04
Special Situations Fund W-ACC-GBP	£ 41.70	-	-0.07	2.08
Short Dated Corporate Bond Fund W-ACC-GBP	£ 10.40	-	0.02	-
Sustainable Water & Waste W-ACC-GBP	£ 1.13	-	0.00	0.15
Sustainable Water & Waste W-INC-GBP	£ 1.12	-	0.00	0.15
UK Select Fund W-ACC-GBP	£ 3.60	-	-0.01	2.13
Global Enhanced Income W-ACC-GBP	£ 2.29	-	-0.01	4.29
Index UK Gilt Fund P-ACC-GBP	£ 0.77	-	0.00	0.59
Sustainable Multi Asset Conservative Fund W-ACC-GBP	£ 0.89	-	0.00	0.16
Sustainable Multi Asset Growth Fund W-ACC-GBP	£ 0.95	-	0.00	0.08

Findlay Park Funds Plc (IRL)
30 Herbert Street, Dublin 2, Ireland Tel: 020 7968 4900
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
American EUR Unhedged Class	€ 153.82	-	-2.17	0.00
American Fund USD Class	$ 160.06	-	-1.64	0.00
American Fund GBP Hedged	£ 78.71	-	-0.82	0.00
American Fund GBP Unhedged	£ 134.56	-	-1.34	0.00

Foord Asset Management
Website: www.foord.com - Email: info@foord.com
FCA Recognised - Luxembourg UCITS

Fund	Bid	Offer	D+/-	Yield
Foord International Fund | R	$ 48.21	-	-0.11	0.00
Foord Global Equity Fund (Lux) | R	$ 15.52	-	-0.06	0.00

Regulated

Fund	Bid	Offer	D+/-	Yield
Foord Global Equity Fund (Sing) | B	$ 18.50	-	-0.07	0.00
Foord International Trust (Gsy)	$ 46.99	-	-0.10	0.00

GAM
funds@gam.com, www.funds.gam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
LAPIS GBL TOP 50 DIV.YLD-Na-D	£ 128.48	-	-0.42	-
LAPIS GBL F OWD 50 DIV.YLD-Na-D	£ 100.87	-	-0.91	-

Guinness Global Investors

Fund	Bid	Offer	D+/-	Yield
Guinness Global Equity Income Y GBP Dist	£ 18.80	-	-0.04	2.34
Guinness Global Innovators Y GBP Acc	£ 25.36	-	-0.48	0.00
Guinness Sustainable Global Equity Y GBP Acc	£ 11.15	-	-0.22	0.00

HPB Assurance Ltd
Anglo Intl House, Bank Hill, Douglas, Isle of Man, IM1 4LN 01638 563490
International Insurances

Fund	Bid	Offer	D+/-	Yield
Holiday Property Bond Ser 1	£ 0.48	-	0.00	0.00
Holiday Property Bond Ser 2	£ 0.63	-	0.00	0.00

Janus Henderson Investors (UK)
PO Box 9023, Chelmsford, CM99 2WB Enquiries: 0800 832 832
www.janushenderson.com
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
Janus Henderson Instl UK Idx Opps A Acc	£ 1.09	-	-0.01	3.13

M & G Securities (1200)F (UK)
PO Box 9038, Chelmsford, CM99 2XF
www.mandg.co.uk/charities Enq./Dealing: 0800 917 4472
Authorised Inv Funds

Fund	Bid	Offer	D+/-	Yield
M&G Charibond Charities Fixed Interest Fund (Charibond) Inc	£ 1.10	-	0.00	2.03
M&G Charibond Charities Fixed Interest Fund (Charibond) Acc	£ 39.20	-	0.15	1.62
M&G Charity Multi Asset Fund Inc	£ 0.87	-	-0.01	3.89
M&G Charity Multi Asset Fund Acc	£ 104.34	-	-0.41	3.74

MMIP Investment Management Limited (GSY)
Regulated
Multi-Manager Investment Programmes PCC Limited

Fund	Bid	Offer	D+/-	Yield
UK Equity Fd Cl A Series 01	£ 2810.68	2842.19	142.84	0.00
Diversified Absolute Rtn Fd USD Cl AF2	$ 1588.98	-	5.05	-
Diversified Absolute Return Stlg Cell AF2	£ 1474.75	-	6.33	-
Global Equity Fund A Lead Series	£ 1721.66	1727.57	67.75	0.00

Marwyn Asset Management Limited (CYM)
Regulated

Fund	Bid	Offer	D+/-	Yield
Marwyn Value Investors	£ 329.72	-	-6.14	0.00

Milltrust International Managed Investments ICAV (IRL)
mimi@milltrust.com, +44(0)20 8123 8316 www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
British Innovation Fund	£ 121.92	-	2.89	0.00
MAI - Buy & Lease (Australia)	A$ 103.45	-	0.50	0.00
MAI - Buy & Lease (New Zealand)	NZ$ 91.20	-	-6.06	0.00
Milltrust Global Emerging Markets Fund - Class A	$ 91.66	-	1.87	0.00

Milltrust International Managed Investments SPC
em@milltrust.com, +44(0)20 8123 8316, www.milltrust.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Milltrust Alaska Brazil SP A	$ 76.58	-	-3.24	0.00
Milltrust Laurium Africa SP A	$ 101.27	-	0.29	0.00
Milltrust Marcellus India Fund	$ 129.28	-	-0.24	0.00
Milltrust Singular ASEAN SP Founders	$ 128.16	-	-0.43	0.00
Milltrust SPARX Korea Equity SP A	$ 103.29	-	-0.85	0.00
Milltrust Xingtai China SP A	$ 93.33	-	-0.73	0.00
The Climate Impact Asia Fund SP (Class A)	$ 75.96	-	-0.98	0.00
The Climate Impact Asia Fund (Class B)	$ 75.37	-	-0.97	0.00

Mirabaud Asset Management (LUX)
www.mirabaud.com, marketing@mirabaud-am.com
Conviction based investment vehicles details available here www.mirabaud-am.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Mir. - Glb Strat. Bd I USD	$ 113.33	-	0.41	-
Mir. - DiscEur D Cap GBP	£ 162.95	-	-0.60	0.00
Mirabaud - UK Equity High Alpha	£ 135.77	-	-2.54	0.00

Oasis Crescent Global Investment Funds (UK) ICVC (UK)
Regulated

Fund	Bid	Offer	D+/-	Yield
Oasis Crescent Global Equity Fund USD A (Dist)	$ 34.20	-	-0.21	0.25
Oasis Crescent Global Income Fund USD A (Dist)	$ 9.94	-	0.00	2.74
Oasis Crescent Global Low Equity Fund USD D (Dist)	$ 12.09	-	-0.05	0.62
Oasis Crescent Global Medium Equity Fund USD A (Dist)	$ 13.40	-	-0.06	0.15
Oasis Crescent Global Property Equity Fund USD A (Dist)	$ 7.65	-	-0.11	0.98
Oasis Crescent Global Short Term Income Fund USD A (Dist)	$ 0.93	-	0.00	1.87
Oasis Crescent Variable Fund GBP A (Dist)	£ 9.68	-	-0.07	0.18

Omnia Fund Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Estimated NAV	$ 946.10	-	-9.48	0.00

Orbis Investments (U.K.) Limited (GBR)
28 Dorset Square, London, NW1 6QG
www.orbis.com 0800 358 2030
Regulated

Fund	Bid	Offer	D+/-	Yield
Orbis OEIC Global Cautious Standard	£ 11.76	-	-0.01	0.00
Orbis OEIC Global Balanced Standard	£ 19.09	-	-0.09	-
Orbis OEIC Global Equity Standard	£ 21.43	-	-0.22	1.99
Orbis OEIC UK Equity Standard	£ 11.05	-	-0.06	3.45

Platinum Capital Management Ltd
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Platinum All Star Fund - A	$ 141.55	-	-	-
Platinum Global Growth UCITS Fund	$ 8.48	-	0.11	0.00
Platinum Essential Resources UCITS Fund SICAV USD Class E	$ 12.08	-	0.18	0.00
Platinum Global Dividend UCITS Fund	$ 48.53	-	0.37	0.00

Polar Capital Funds Plc (IRL)
Regulated

Fund	Bid	Offer	D+/-	Yield
Automation & Artificial Intelligence CL I USD Acc	$ 14.40	14.40	-0.22	0.00
Asian Starts I USD Acc $	$ 13.99	-	0.03	0.00
Biotechnology I USD	$ 37.15	37.15	-0.65	0.00
China Stars I USD Acc $	$ 10.52	10.52	-0.08	0.00
Emerging Market Stars I USD Acc	$ 11.14	-	-0.02	0.00
European Ex UK Inc EUR Acc	€ 13.79	13.79	-0.06	-
Financial Opps I USD	$ 13.66	-	-0.09	2.74
Global Convertible I USD	$ 13.43	13.43	-0.11	0.00
Global Insurance I GBP	£ 9.94	-	0.03	0.00
Global Technology I USD	$ 62.65	-	-1.60	0.00
Healthcare Blue Chip Fund I USD Acc	$ 17.83	17.83	-0.01	0.00
Healthcare Dis I Acc USD $	$ 11.64	-	-0.37	-
Healthcare Opps I USD	$ 62.16	-	-0.79	-
Income Opportunities B2 I GBP Acc	£ 2.88	2.88	-0.01	0.00
Japan Value I JPY	¥ 140.34	140.34	1.00	0.00
North American I USD	$ 32.47	32.47	-0.39	0.00
Smart Energy I USD Acc $	$ 9.11	9.11	-0.13	0.00
Smart Mobility I USD Acc $	$ 8.62	8.62	-0.13	0.00
UK Val Opp I GBP Acc	£ 11.71	11.71	-0.09	0.00

Private Fund Mgrs (Guernsey) Ltd (GSY)
Regulated

Fund	Bid	Offer	D+/-	Yield
Monument Growth 15/11/2022	£ 544.17	549.50	15.00	1.11

Prusik Investment Management LLP (IRL)
Enquiries - 0207 493 1331
Regulated

Fund	Bid	Offer	D+/-	Yield
Prusik Asian Equity Income B Dist	$ 171.60	-	-1.27	5.08
Prusik Asia Emerging Opportunities Fund A Acc	$ 178.93	-	0.28	0.00
Prusik Asia Fund U Dist.	£ 210.86	-	-0.41	0.00
Prusik Asia Sustainable Growth Fund A Acc	$ 86.35	-	-0.58	-

Purisima Investment Fds (CI) Ltd (JER)
Regulated

Fund	Bid	Offer	D+/-	Yield
PCG B ✠	280.77	-	2.77	0.00
PCG C ✠	273.19	-	2.70	0.00

Ram Active Investments SA
www.ram-ai.com
Other International Funds

Fund	Bid	Offer	D+/-	Yield
RAM Systematic Emerg Markets Eq	$ 205.84	205.84	-2.15	-
RAM Systematic European Eq	€ 502.32	502.32	-6.14	-
RAM Systematic Funds Global Sustainable Income Eq	$ 146.43	146.43	-0.60	0.00
RAM Systematic Global Eq Sustainable Alpha	$ 108.60	108.60	0.25	-
RAM Systematic Long/Short European Eq	€ 149.68	149.68	1.43	-
RAM Systematic US Sustainable Eq	$ 339.50	339.50	-3.89	-
RAM Tactical Global Bond Total Return	€ 137.93	137.93	0.19	-
RAM Tactical II Asia Bond Total Return	$ 140.20	140.20	0.33	-

Ruffer LLP (1000)F (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 601 9610
Authorised Inv Funds
Authorised Corporate Director - Link Fund Solutions

Fund	Bid	Offer	D+/-	Yield
LF Ruffer Diversified Rtrn C Acc	106.17	-	-0.04	0.85
LF Ruffer Diversified Rtrn C Inc	105.28	-	-0.04	0.94
LF Ruffer European C Acc	762.47	-	22.75	0.82
LF Ruffer European C Inc	136.78	-	4.08	0.91
LF Ruffer European O Acc	739.30	-	22.02	0.54
LF Ruffer Equity & General C Acc	563.04	-	6.57	0.77
LF Ruffer Equity & General C Inc	508.68	-	5.93	0.78
LF Ruffer Equity & General O Acc	545.98	-	6.34	0.47
LF Ruffer Equity & General O Inc	502.37	-	5.83	0.47
LF Ruffer Gold C Acc	224.45	-	2.41	0.00
LF Ruffer Gold C Inc	135.85	-	1.46	0.00
LF Ruffer Gold O Acc	217.57	-	2.33	0.00
LF Ruffer Japanese C Inc	162.41	-	5.85	0.26
LF Ruffer Japanese C Acc	349.89	-	12.60	0.24
LF Ruffer Total Return C Acc	570.42	-	9.16	2.41
LF Ruffer Total Return C Inc	355.74	-	5.70	2.46
LF Ruffer Total Return O Acc	553.07	-	8.85	2.42
LF Ruffer Total Return O Inc	344.72	-	5.51	2.47

Rubrics Global UCITS Funds Plc (IRL)
www.rubricsam.com
Regulated

Fund	Bid	Offer	D+/-	Yield
Rubrics Emerging Markets Fixed Income UCITS Fund	$ 131.93	-	-0.32	-
Rubrics Global Credit UCITS Fund	$ 16.46	-	0.02	0.00
Rubrics Global Fixed Income UCITS Fund	$ 168.83	-	0.63	0.00

Slater Investments Ltd (UK)
www.slaterinvestments.com; Tel: 0207 220 9460
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Slater Growth A Acc	647.29	647.29	-2.05	0.00
Slater Income A Inc	138.76	138.76	-0.15	5.22
Slater Recovery A Acc	333.22	333.22	-1.51	0.00
Slater Artorius	295.02	295.02	4.95	0.32

Stonehage Fleming Investment Management Ltd (IRL)
www.stonehagefleming.com/gbi
enquiries@stonehagefleming.com
Regulated

Fund	Bid	Offer	D+/-	Yield
SF Global Best Ideas Eq B USD ACC	$ 216.72	-	-0.76	-
SF Global Best Ideas Eq D GBP INC	£ 276.46	-	-0.87	-

Superfund Asset Management GmbH
www.superfund.com, +43 (1) 247 00
Other International Funds
Other International Funds

Fund	Bid	Offer	D+/-	Yield
Superfund Green Gold	$ 1232.33	-	-9.52	0.00
Superfund Green Silver	$ 1051.64	-	-7.23	0.00

Regulated

Fund	Bid	Offer	D+/-	Yield
Superfund Green US$	$ 979.90	-	-7.01	0.00

Toscafund Asset Management LLP (UK)
www.toscafund.com
Authorised Funds

Fund	Bid	Offer	D+/-	Yield
Aptus Global Financials B Acc	£ 4.72	-	-0.04	4.36
Aptus Global Financials B Inc	£ 3.05	-	-0.03	4.51

Toscafund Asset Management LLP
www.toscafund.com

Fund	Bid	Offer	D+/-	Yield
Tosca A USD	$ 406.01	-	8.84	0.00
Tosca Mid Cap GBP	£ 170.45	-	1.07	0.00
Tosca Opportunity B USD	$ 261.12	-	2.32	0.00
Pegasus Fund Ltd A-1 GBP	£ 40.62	-	0.28	0.00

Troy Asset Mgt (1200) (UK)
65 Gresham Street, London, EC2V 7NQ
Order Desk and Enquiries: 0345 608 0950
Authorised Inv Funds
Authorised Corporate Director - Link Fund Solutions
Trojan Investment Funds

Fund	Bid	Offer	D+/-	Yield
Trojan Ethical O Acc	125.06	-	0.04	0.00
Trojan Ethical Global Inc O Acc	100.99	-	-0.07	-
Trojan Ethical Global Inc O Inc	98.49	-	-0.06	-
Trojan Ethical O Inc	124.81	-	0.04	0.00

Zadig Gestion (Memnon Fund) (LUX)
FCA Recognised

Fund	Bid	Offer	D+/-	Yield
Memnon European Fund - Class U2 GBP	£ 239.08	-	-2.81	0.00

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Guide to pricing of Authorised Investment Funds: (compiled with the assistance of the IMA. The Investment Association, Camomile Court 23 Camomile Street, London EC3A 7LL. Tel: +44 (0)20 7831 0898.)

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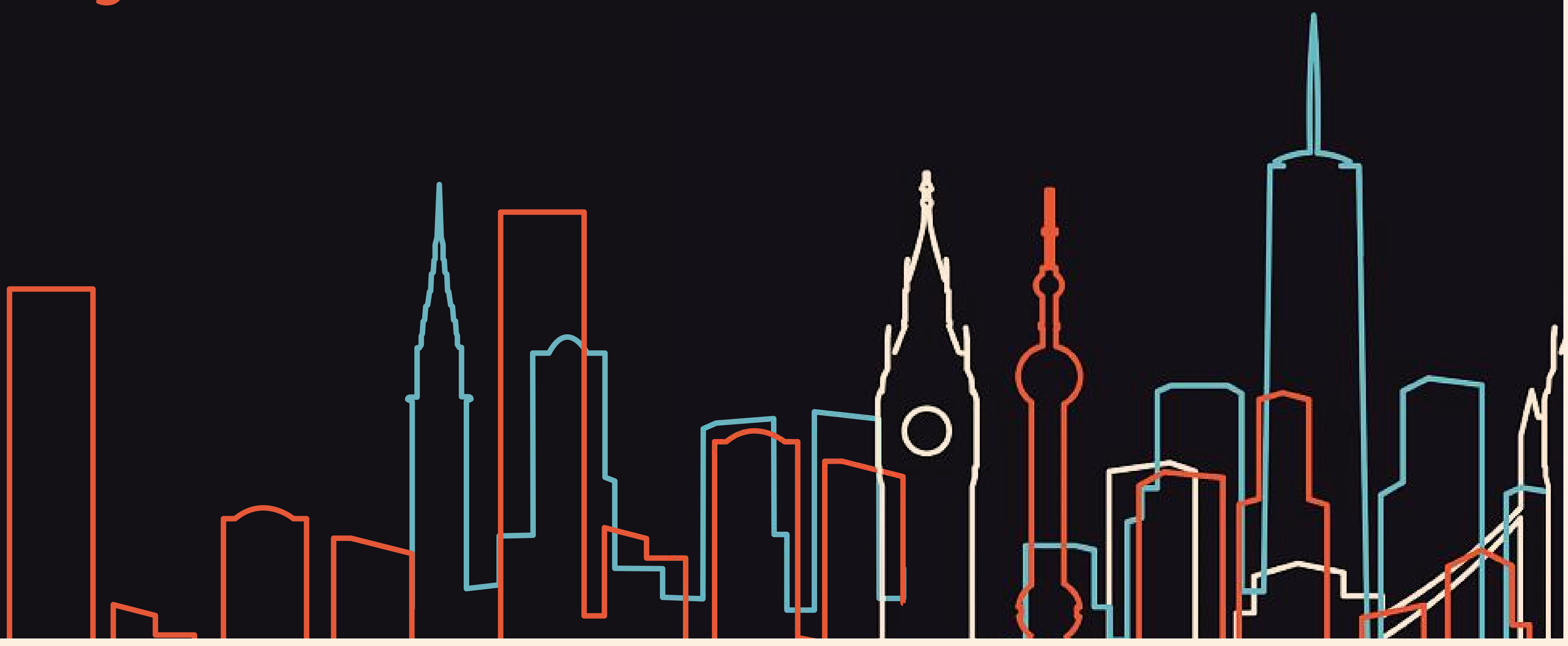

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ARTS

Moving memories from the pre-iPhone era

The week's new film releases reviewed by Danny Leigh and Leslie Felperin

Aftersun
Charlotte Wells
★★★★★

The Menu
Mark Mylod
★★★★☆

Bardo: False Chronicle of a Handful of Truths
Alejandro G Iñárritu
★★★☆☆

Armageddon Time
James Gray
★★☆☆☆

Above: Paul Mescal and Frankie Corio as a holidaying father and daughter in 'Aftersun'. Below: Ralph Fiennes savours the role of a sadistic chef in 'The Menu'

No title card tells us when the breathtaking **Aftersun** is set. The temptation might just be to date it: "Childhood." The film is the first from Scottish director Charlotte Wells, the result such a gossamer knockout that the fact seems implausible, the movie made with a dizzyingly sharp eye for the universal stuff of growing up.

Yet a timeframe of the late 1990s is soon clear from a breadcrumb trail of haircuts and music — and the pixelated fuzz of the digital video camcorder on which a chunk of the film is shot. The story is bound up with the past, rooted in the brief era after the advent of DV but before the iPhone. Then, every second of our lives was not yet reflexively captured for storage in the cloud. Instead, memories still mostly came only in fragments.

Here they involve a week-long stay at a resort in Turkey. The vacationers are father and daughter: sweet-centred Calum (Paul Mescal) and scampish 11-year-old Sophie (newcomer Frankie Corio). Such is the simplest version of the film: a charming, vividly detailed portrait of a family holiday, pieced together from loaded, low-res moments. The specifics of time and place are dead-on: wall-to-wall Brits, polo-shirted resort reps, a glug of Fanta, a listless "Macarena". It will also be a Proustian rush for anyone who ever felt time pass differently out of school, the world transformed between terms. That certainly means me, and probably you too.

The child's-eye view at the heart of the film is uncanny. It also often comes to rest on Calum. And here the other side of *Aftersun* takes shape: a more melancholy, complex picture. Sophie is still young enough for her father to be fascinating, a friendly giant, co-conspirator in fun. His big, goofy smile is that of an overgrown kid himself.

And yet when Sophie borrows his Sony camcorder, she finds him out on the hotel balcony with his back to her, or wearing a more uncertain expression she can't quite yet place. The camera sees all: witness to the eternal mysteries of parents, the kind children only understand on reaching adulthood, and perhaps not even then. Later comes a perfectly weighted flash of time travel; a glimpse of the future for each character. The effect is hugely moving. But let's say no more about that. Wells says it powerfully enough.

Aftersun is designed to stand or fall on its two central performances. Both Mescal and Corio are quietly spectacular. But the brightness of her stars shouldn't obscure Wells's own achievement. If her debut simply story-told this confidently with images alone, *Aftersun* would already mark the most poised first film from a British director since another gifted Scot, Lynne Ramsay, made the luminous *Ratcatcher* in 1999.

But the magic doesn't only lie in what Wells shows us. It is also in what she chooses not to: what she knows that, like children coming of age, we must work out for ourselves. **DL**
In UK cinemas from November 18

One of the delectable treats of late-1970s cinema is the comedy-crime-mystery *Who Is Killing the Great Chefs of Europe?* in which Jacqueline Bisset and George Segal try to work why exalted cooks are being slain in the manner of their signature dishes. (The pressed duck murder is especially disturbing.) A rumoured remake never materialised, but squid-ink black comedy **The Menu**, an inversion of the Great Chefs formula, is the next best thing. This time, it's a chef who poses the threat — to his own customers.

Those with a taste for contemporary haute cuisine will recognise a certain sadomasochistic dynamic common between customers and high-end cooks, with the latter often serving up food that challenges both norms and palettes. Director Mark Mylod (who also helmed some of the best episodes of *Succession*) and screenwriters Seth Reiss and Will Tracy take that cuisine-of-cruelty logic to an extreme as 12 customers assemble for a night of fine dining at Hawthorn, an ultra-exclusive restaurant on a remote island. (The location is not revealed but the accents are American.)

Margot (Anya Taylor-Joy) doesn't share her date Tyler's (Nicholas Hoult) prattish enthusiasm for foods with interesting "mouth feel", and has never even heard of Hawthorn's revered executive chef Slowik (Ralph Fiennes, on cracking form). It turns out that's not the only thing that makes her the odd one out among the clientele on the night in question, who include a restaurant critic (Janet McTeer) stuffed full of her own importance, a name-dropping movie star who fancies himself an epicure (John Leguizamo) and an assortment of super-rich clients who might have less taste than money but know how to spend it.

At first, only Margot notices something menacing about the disdain of the martinet-like manager Elsa (Hong Chau) and the zombie-like kitchen staff, beavering away at their mise en place with clockwork precision, like stormtroopers in chef's whites. But as the ingredients list of each course gets stranger (appearing onscreen as a list of unadorned, comma-separated nouns, as is the fashion these days), everyone starts to taste the fear, as well as the notes of "desire and despair" in the wine, as the sommelier smilingly puts it.

Mylod and Co get many details about uber-fashionable temples of dining right, like the cultish devotion of staff members and the modishly austere architecture. (The set is reminiscent of Noma's interior with its plate-glass windows and unadorned walls.)

As in *Succession*, there is a love-hate relationship here with luxury and privilege, although eventually Slowik demands that Margot must decide if she's with "us" (ie the server class) or "them" (the customers, who are seldom right). At first it's not clear why Slowik's animus has grown so very bloodthirsty, and when an explanation of sorts does arrive, it's not terribly persuasive. A little more depth to the bitter flavour might not have gone amiss, but ultimately this is a near perfectly executed meal of a movie, made with exceptional ingredients and skill. **LF**
In UK cinemas from November 18

The title **Bardo: False Chronicle of a Handful of Truths**, especially for those up on their Buddhist theology and readers of American experimental writer George Saunders, is rather a giveaway. So don't go complaining about spoilers if this review reveals that *Bardo* unfolds in a dreamlike liminal space. It's blindingly obvious anyway from the off, given that this latest feature from writer-director Alejandro G Iñárritu (*The Revenant*, *Birdman*) opens with a long shadow cast by an unseen figure who, judging by the shadow, is able to lift off the ground like an ethereal spirit. Or perhaps one weighing only *21 Grams*, the title of another Iñárritu feature.

Bardo plays like a greatest hits album, constantly dropping allusions, quotes and Easter egg-like references to its director's previous work. (The presence of a few stray mutts harks back to his first film, 2000's *Amores Perros*.) As the story of documentarian Silverio (Daniel Giménez Cacho) unfolds, scenes merging seamlessly into each other through liquid editing, it becomes obvious that this is Iñárritu's self-reflective mid-life-crisis movie. Like his creator, Silverio is a Mexican film-maker fiercely proud of his homeland and its culture, even if he lives most of the time in Los Angeles, where he gets all the love that the Mexican industry won't show him.

As Silverio struggles to write an acceptance speech for an upcoming lifetime achievement ceremony across the border, he revisits his roots in a number of increasingly weird but magnificently choreographed and luminously lit tableau sequences. An interview on a talk show blurs into a riotous party that bleeds into a weird historical re-enactment in which Silverio meets the conquistador Cortes on top of a pile of corpses representing the victims of colonisation.

As an example of maximalist cinema — all the rage these days — it's undoubtedly impressive, but also rather exhausting. Maybe the most telling moment comes when a critic of Silverio disrupts the film's spell by dropping a fatal truth bomb: the film-maker makes everything oneiric, he says, to disguise the fact that he doesn't have anything meaningful to say. **LF**
In cinemas from November 18 and on Netflix from December 16

Set very precisely in the autumn of 1980 in a very specific part of Queens, New York, **Armageddon Time** gives off strong autobiographical vibes, even for those who know nothing about its writer-director. James Gray turned 11 in 1980, the same age as *Armageddon Time*'s protagonist Paul Graff (Banks Repeta) and grew up in the same part of Queens. What's more of a mystery is whether Gray's grandfather had an accent quite as weird as the Welsh-Yiddish mishmash Anthony Hopkins puts on display as Paul's grandpa Aaron Rabinowitz.

Threaded through the film are events that seem even stranger, such as an encounter with Fred and Maryanne Trump (the latter played by Jessica Chastain, no less), father and sister of Donald — another episode apparently taken from Gray's life, more or less. The appearance of the Trumps adds an ominous note to an otherwise somewhat mundane coming-of-age story.

Paul, a boy with a head full of dreams who wants to be an artist, tries to do the right thing by his African-American friend Johnny (Jaylin Webb) at a time when a Jewish kid had far more chances of getting ahead than a black one. Both young actors give strong performances, which is more than you can say for Jeremy Strong and Anne Hathaway, both laying it on too thick as Paul's highly strung parents. As my own grandpa from the shtetl would say, without a trace of Welsh, *oy gevalt*. **LF**
In cinemas from November 18

Left: Daniel Giménez Cacho in Alejandro G Iñárritu's midlife-crisis movie 'Bardo: False Chronicle of a Handful of Truths'. Below: Banks Repeta, left, and Jaylin Webb in James Gray's 'Armageddon Time'

FT BIG READ. FINANCIAL SERVICES

Is the fintech ready to become a bank? Insiders say that a range of cultural and operational issues might be standing in the way of co-founder Nik Storonsky's ambitions.

By Laura Noonan and Siddharth Venkataramakrishnan

Revolut's growing pains

FT montage: Charlie Bibby/Dreamstime

Earlier this year, the UK-based fintech company Revolut ended its banking relationship with a significant customer. Soon after, a strategic partnership manager at Revolut pasted wording from a complaint by the client about its treatment into an internal messaging board, visible to a large number of employees.

The company's global head of sales replied on the public Slack channel, asking the name of the company. "OnlyFans Ltd," the original poster replied, referring to the company best known for hosting adult content. The post earned him 37 smiley face emojis, based on a screenshot seen by the Financial Times.

In a statement, Revolut acknowledged the information was handled improperly, but said "no sensitive information was discussed" and that every employee receives annual confidentiality training.

But one Revolut staffer who read the exchange at the time describes it as a "particularly egregious" example of how the fintech shared widely information on clients "when it was not appropriate". While it was not illegal, the person adds, it risked embarrassing the client and making Revolut look unprofessional. OnlyFans declined to comment.

The way this client communication was handled seems characteristic of a streak of immaturity that runs through the business, judging from interviews with more than a dozen former Revolut staffers, many of whom left in the past year, and others who have dealt with the company.

The internal lack of restraint has not prevented them winning more than 25mn customers who use the Revolut platform for everything from payments to foreign exchange, and a far higher valuation than its neobank rivals.

But after seven years in operation, the challenges facing Revolut suggest it's time to grow up. The company is staring down the prospect of tougher regulation by the European Central Bank as it pursues European banking ambitions. UK regulators are yet to grant Revolut the banking licence it applied for in January last year, which chief executive Nik Storonsky says is key to the company's broader ambitions.

Revolut has spoken of its ambitions of issuing mortgages, which could be completed entirely on an app

The fintech is also trying to address what insiders say are undesirable cultural and operational issues at the firm.

The UK's Financial Conduct Authority, which along with the Bank of England, holds the key to the banking licence, last year carried out a review of the company's culture, which raised alarms within Revolut. The FT has also learnt of a separate review requested by the FCA in 2020 into risk management at the firm.

In 2019, before it applied for bank status, financial control was a "weak point," says one former Revolut executive. "[It] was a classic company that had grown very fast and didn't have a lot of people with the necessary financial services and regulator experience."

Revolut denied that allegation and said it "takes its obligations in relation to financial crime extremely seriously. We continue to invest significantly in both our people and systems to further develop and strengthen our controls."

Now, as a recession looms which has already battered valuations at peers, Revolut must convince the gatekeepers of global banking systems that it is ready to take the next step in its development.

'A known issue with culture'

Revolut has a brutally frank internal culture, by its own admission. The company's website boasts of being "radically truthful about each other's performance", and giving honest feedback in a way that "might hurt sometimes".

The company puts a sharp focus on meeting targets, which some say inspired excessive risk taking. "It drives bad behaviours . . . and makes people very combative against each other. Normally nice people," says another former staffer.

"There's definitely a known issue with culture," says one former executive at Revolut group, describing a "cut-throat" environment that prevailed. Revolut said it has a "high performance culture" that is "diverse, supportive, and encourages people to be the best".

Turnover seems sizeable. Publicly available data from LinkedIn suggests the median tenure is around 0.8 years, lower than figures for those at rival fintechs such as UK neobanks Starling and Monzo or Swedish payments pioneer Klarna.

Revolut said it did not accept Linkedin's data, and said its own records show average tenure is a year and a half. In exit interviews, they said, 80 per cent of respondents say their experience of working there was positive.

The cultural tone is set from the very top, insiders say, by Storonsky, the company's 38-year-old Russia-born cofounder.

"He is incredibly focused and incredibly determined and makes no excuses for who he is. And for a lot of people that's really hard to stomach," says Nick Hungerford, the Nutmeg founder who got to know Storonsky through the UK fintech scene they both came up in.

Storonsky made a virtue of his plain-spokenness and outsider status, saying that when he and his co-founder started Revolut "we just didn't know much about payments at all . . . We just had this idea that we want to do it for free. So we jumped in." In mid-June, he publicly lambasted the UK regulators making him wait indefinitely for a banking licence.

Hungerford says he doesn't support every comment Storonsky has made, but says his frankness has produced admirable results. "If he was more . . . reserved we wouldn't get what we get with his ferocity of development."

Storonsky's management style raised some hackles internally. "There was a lot of solo decision-making versus group decision-making," a former group executive says.

A decision to close key businesses in Ireland in 2021, for example, was "all Nik," the person says. While the decision was sound, they add, the process around making it was not.

"I found out about [Revolut planning to offer] UK mortgages when Nik announced it at a conference somewhere," says another former senior executive involved in the UK bank application.

In 2019, Revolut appointed Martin Gilbert, former co-chief executive of asset manager Abrdn, as its inaugural chair, who said he was proud to bring his "deep experience of corporate governance" to the company. But the board was seen by some "as a hindrance more than anything," in the view of the former group executive.

> '[Revolut] was a classic company that had grown very fast and didn't have a lot of people with the necessary financial services experience'
>
> **One former Revolut executive**

Asked to comment on Storonsky's oversight and involvement in the firm, Revolut said: "Like most founder CEOs, Nik has a 360° view of the business and is actively involved in all aspects of Revolut." He sits at a desk on an openplan floor, it added, and is contactable "at any time".

On the question of the board, it noted that Storonsky meets with Gilbert weekly, and that collaboration is "tantamount to our collective success".

Several former employees say that Storonsky unnerved executives by installing young graduates as "founder associates" to observe business lines and report directly back to him.

Sometimes these founder associates, usually men in their early 20s, were appointed to run divisions if Storonsky was unhappy with current management, say former executives. One was put in charge of data in 2019, and another given oversight of talent acquisition in early 2020.

Revolut said founder associates had been known as "operating principals" for the past year and provide "expertise on unique and complex projects, usually in the short-term".

The FCA declined to comment on or confirm a cultural review of Revolut, but such assessments can examine issues of leadership and governance. The reviews are "very rare" and "definitely an indication the FCA is uncomfortable", a person familiar with the regulator's process says.

Revolut said that these kinds of cultural reviews are not unusual, and are part of its "ongoing supervisory relationship" with the FCA, which already oversees its UK payments business. "We welcomed the opportunity to showcase our healthy culture," it said.

The company held internal presentations on work culture after the FCA's review, two people tell the FT, and several say they were told when being interviewed that the fintech's culture was changing.

Still, one executive who quit before the FCA review says he left Revolut in part because he couldn't persuade Storonsky to change the culture in a more meaningful way.

"Some companies, the founder is a bad person, toxic, that's not Nik. He's just a machine. He has no EQ and that leads to a high friction culture," the person says, adding that he would speak to Storonsky at length on culture and the CEO "struggled to understand a course of action" to fix it.

> 'Some companies, the founder is a bad person, toxic, that's not Nik. He's just a machine. He has no EQ and that leads to a high friction culture'
>
> **A former Revolut executive on Nik Storonsky (above)**

A current Revolut executive suggests there wasn't that much to fix anyway. "There has been no one single event [regulators] have been able to point at of so-called culture leading to a bad customer outcome," the person says.

In a publicly streamed discussion with an investor on November 17, Storonsky compared his workforce to "elite athletes" who "want to win, want to be number 1," and said he acts as a "coach" helping them reach their goals. "Being in the team means that you learn from the best, really fast."

"No one will stay in the team forever," he added. "Everyone understands and accepts it."

Watching the watchdogs

The FCA's cultural review is only the latest sign that UK regulators have been scrutinising Revolut more closely than before.

In 2020, the FCA requested an independent expert carry out a review of Revolut's measures to prevent and detect financial crime, a process known as a section 166.

The regulator does not disclose details of section 166 requests, but says on its website it asks for such reviews "if we are concerned or want further analysis".

The FCA did recently grant approval for Revolut to join a register of companies allowed to offer cryptocurrency services in the UK. The banking licence, however, remains elusive.

People familiar with Revolut's regulatory dealings tell the FT that UK regulators expressed concerns about the company's money laundering controls. There were also concerns about operational issues like the fact that the only way to contact Revolut is through its app, so non-customers who have concerns about fraud have almost no way to get in touch.

Storonsky's personal interventions have not helped, says one regulatory source. "Having a go at the regulator is . . . not very effective."

Revolut's regulatory challenges have been exacerbated by a string of high-profile departures from its risk and compliance teams, and additional pressure from auditors after watchdogs warned of the "unacceptably high" risk of flaws in its accounts.

Asked how close Revolut is to having a full executive team at the UK bank, the company said: "The UK bank has the appropriate executives in place to deliver the bank licence and will of course have a full team upon authorisation."

The FCA and BoE both declined to comment on the licence application.

European scrutiny

As the UK's regulators clamoured for more information to support the banking licence, a common view within the fintech was "well, the Bank of Lithuania don't need that", two former Revolut insiders told the FT.

Revolut's relationship with the Bank of Lithuania dates back to 2018, when it was awarded a licence to offer banking services such as current accounts and loans throughout the EU from its Vilnius-based operation.

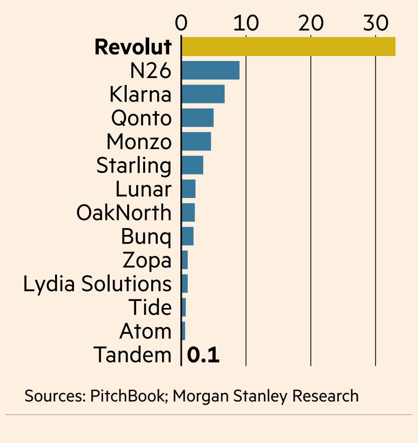
Three years later, it merged its EU payments business with the Lithuanian bank, creating a much bigger pan-European company with a broader licence which was approved by the ECB.

Until now, Revolut's European entity has been primarily overseen by the Bank of Lithuania. But after a review early next year, it is likely to meet the threshold for direct supervision by the ECB, which oversees the eurozone's largest and most systemic banks.

When it falls under the full aegis of the ECB, Revolut will be treated to a "comprehensive assessment", covering everything from asset quality to risk management and internal modelling. The review can also branch into areas like anti-money laundering controls.

Revolut dwarfs fintech peers

Implied valuations of non-listed digital banking providers ($bn)



Sources: PitchBook; Morgan Stanley Research

Day-to-day activity will also be different. "Our supervisors are a bit more heavy handed," one person familiar with the ECB's approach said. "The amount of pressure, the information we ask for, there's a clear difference [from national supervisors]."

Revolut will also have a lot less high-level access under the new regime. Its senior executives had audiences with the governor of the Bank of Lithuania; they are unlikely to spend much time with ECB president Christine Lagarde.

The company said it "proactively and voluntarily sought ECB consolidated supervision" and that the change will mean little to the company in terms of the nature of its oversight.

But it recently had a brush with its current European regulators. On November 16, the Bank of Lithuania censured Revolut's European payments business for its failure to submit audited financial statements in time, and warned it over its handling of consumer complaints — including cases of "incomplete, unsubstantiated answers" and missed deadlines.

Revolut's European bank, which merged with the payments business last summer, was fined €70,000 for the delayed financial statements.

The company said it had already taken steps to address the issues with customer complaints highlighted by the Bank of Lithuania. It said "technical reasons" that prevented it filing on time have since been resolved, so it will not happen again.

Licence to thrive

Cracking the home market in the UK remains the prize for Revolut, almost two years after making its submission.

"The biggest restrictor in not having a banking licence is that the funds customers have with Revolut have to be safeguarded," says one former executive with knowledge of the business model. "When you become a bank, those restrictions go away . . . there's a lot more freedom to do what you want with customer deposits."

> '[The focus on targets] drives bad behaviours . . . and makes people very combative against each other. Normally nice people'
>
> **Former Revolut staffer**

PitchBook analysts Rudy Yang and Robert Le say "further delays in obtaining a UK banking license could prevent Revolut from achieving higher profitability from lending to consumers".

The UK delays are also hurting Revolut's broader ambitions. "The UK is a bottleneck for other licences," Storonsky told a conference in November. The company has drafted an application for a US banking licence, and is also eager to expand operations in Australia. But the CEO says regulators there could make their licences conditional on Revolut getting one in its home market.

Still, even with banking licences, experts say Revolut, like every other lender, will suffer as demand for credit dries up in a worsening economy.

The PitchBook analysts say Revolut's payments business could also come under pressure from "lower spending volumes".

Others offer a sunnier take. Gilles Chemla, finance professor at Imperial College, says Revolut can benefit from the downturn. "If Revolut continues to expand and is contrarian while everyone else shrinks you might expect them to be one of the winners."

In a statement, Revolut says it is well-prepared for a declining economy. "We're in a strong position to accelerate our growth, as managing money effectively becomes even more important."

Unlike other big fintechs, Revolut hasn't announced widespread lay-offs or a cost-cutting programme. But insiders say it had already launched a series of cost-saving initiatives before the economy began to turn.

A former executive says that in June 2021 all department heads were told to justify any open jobs. One former recruiter said she and her colleagues were ordered to suspend hiring in high-cost locations.

Whatever its challenges, Revolut has the luxury of handling them largely in private. The last set of meaningful accounts it filed date back to 2020, and the next set won't land until the end of this year.

"We're not planning fundraising because we don't really need it," Storonsky told the Web Summit conference in November. "Obviously investors are nervous about their portfolios. It's a difficult time for the venture industry."

The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

A dismal outlook for the British economy

Chancellor helps to restore credibility but UK needs a proper growth strategy

Chancellor Jeremy Hunt's Autumn Statement was so diametrically opposite to the "mini" Budget of his predecessor Kwasi Kwarteng that it felt almost as if a different party had come to power. In eight weeks, Britain has swung from having the largest tax cuts in 50 years to the most austere package of revenue-raising and spending curbs for more than a decade. The market reaction suggests the £55bn belt-tightening, though backloaded, managed to placate investors. Yet even more eye-catching than the measures themselves was the dire outlook that necessitated them. Living standards are set for their biggest fall in six decades; the economy will regain its pre-pandemic level only by the end of 2024. Even if its finances are stabilised, Britain's growth problems remain chronic.

The Conservative chancellor needed to do enough to convince markets he was serious about fiscal consolidation without scaring his own backbenchers by going too far. Restoring credibility came down to tone and presentation — convincing investors that Hunt and new premier Rishi Sunak are serious people. The rhetoric rightly emphasised support for the Bank of England's inflation-fighting efforts and its independence, and respect for the fiscal watchdog, the Office for Budget Responsibility.

In substance, delaying the bulk of the tightening until 2025 and achieving almost half of it through tax rises makes political and economic sense. Spending cuts have a bigger drag on growth, and putting them off will help to cushion the recession that has already begun. The phasing confronts the Labour party with a dilemma over whether to commit to similar spending cuts in an election which is likely due in 2024, and leaves room for economic realities to turn out less bleak than the forecasts.

With inflation hitting a 41-year high of 11.1 per cent in October, and interest rates still likely to move higher, UK households and businesses were in no position to stomach a large near-term fiscal tightening. Ensuring benefits and pensions rise in line with inflation, and levying tax from high earners and the wealthy, lightens the load on the vulnerable. Extending the energy support package, albeit on a less generous basis, alongside grants for the most needy, was a necessary step, too — even if the policy remains wasteful in its design.

Where the statement was badly lacking was in plans to boost potential growth. Plans to freeze capital spending after 2025 — meaning a big cut from what was previously planned — will take a serious toll. Little was announced to boost feeble business investment, which remains a significant drain on productivity. The government acknowledged the urgency of getting inactive workers back into a labour force still smaller than it was pre-pandemic, but left it to a task force to devise policies.

> The country has arrived where it is through a self-reinforcing cycle of bad decision-making, for which the Conservatives must take much of the blame

The immediate reason why Hunt had to announce tax rises and spending cuts was the inflation that was a legacy of the pandemic, turbocharged by Vladimir Putin's war in Ukraine. But the situation was worsened by the damage to Britain's credibility from Kwarteng and former premier Liz Truss's unfunded tax-cut plans. Ultimately, the UK arrived where it is through a self-reinforcing cycle of bad decision-making and anaemic growth, for which the Conservatives, in power for 12 years, must take much of the blame. That has to be acknowledged, as does the impact of a hard Brexit deal that piled costs on business.

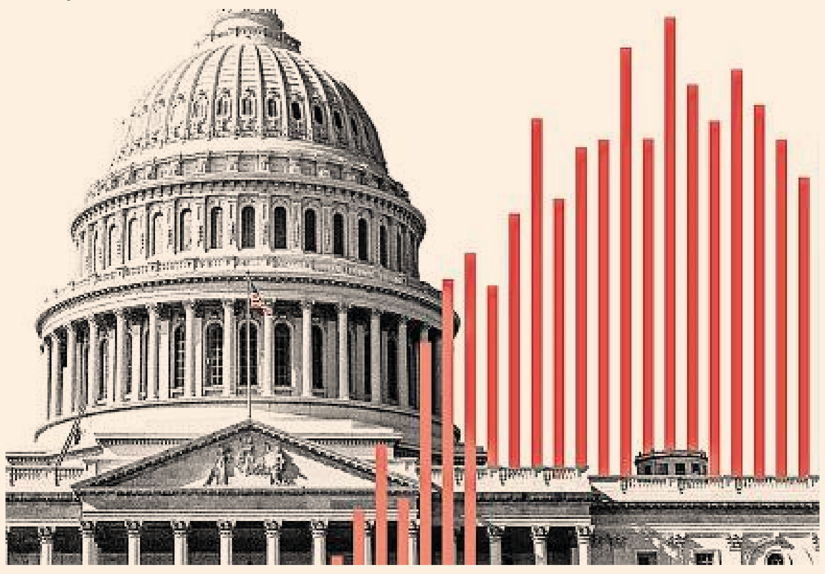
Now that the government has steadied the economic ship, it must develop a serious and credible plan to get Britain's economy growing again. If it fails to do so, it will jettison whatever slim hope it may retain of winning the next election and leave Britain facing years of painful austerity and stagnation.

Opinion Data Points

Election prediction has never been more important

Oliver Roeder

FT montage/Dreamstime



In the end, the predicted "red tsunami" of Republican midterm wins did not come to pass. It was a narrative of murky origin that became a go-to piece of punditry — and in its collapse, the value of data-led election prediction was brought into sharp relief.

In the run-up to elections, an entire industry is devoted to predicting the outcome, burning for a connection to the electorate's thinking. Data journalists and pollsters enter polls into vast databases. They aggregate them, rate them, weight them and regress them. They post endlessly on Twitter — and then fight with each other over methodological details, also on Twitter.

Election prediction is the defining empirical journalism project of the modern era. And in some ways, it seems a fool's errand. Eventually, the elections actually happen, and we learn the outcome. If you're right, well, you ought to have been, and if you're wrong you are pilloried. So what's the point?

> Forecasts provide a vehicle to address the inherent uncertainty of the world

The critics of election prediction bemoan the opportunity cost of man-hours that could have been better spent investigating policy or people. They worry about a lack of humanity in the coverage. And they lament possible vote-suppressing effects; one may not be motivated to go to the polls if one's candidate is up or down by a large enough amount in the forecasts. These are fair concerns.

But the prediction project is crucial, as is the age-old work of the pollsters whose data feeds the whole endeavour. (Gallup, for example, published its first opinion poll in 1935.) The ongoing practice of forecasting — most visibly at FiveThirtyEight (where I used to work, though not on election prediction) and other media organisations, but also in dorm rooms and on tiny blogs — is a net positive for democracy.

The biggest story before an election is who will win. The demand for this story will, inevitably, be met by media supply. That supply can be the stuff of synthetic narrative and the horse race, of false plot points and pet theories, ginned up by the demands of 24-hour TV news or by anecdata from the stump. But it can also be the result of thoughtful aggregation and analysis, of the careful application of accumulated empirical knowledge of statistics and polling.

"It's useful to focus on winning because, after all, that's politics, that's how the power gets passed out," Michael Lewis-Beck, a political scientist at the University of Iowa, tells me. "Bringing empirical evidence into the debate . . . does elevate the discourse."

One net positive of this work is that predictions generate data of their own, an empirical record by which one can judge success, and future coverage can improve. Pollsters, too, leave an empirical trail of their measurements of public sentiment, to be compared with the outcomes of actual contexts and learnt from.

In contrast, the life blood of empty punditry is its impermanence. "If you look at the distinguished pundits, it's a lot of conjecture," Lewis-Beck says. "It could be well written, but it's empirical-light, it's pretty light beer."

A further positive is that forecasts provide a vehicle to address the inherent uncertainty of the world. This vehicle is effectively expressed through data visualisation — a carefully weighted bell curve of many possible futures or (yes) a twitching needle.

And forecasts and polls are a thermometer with which to measure the effects of the world and the perceptions of the people — an aggregated look at what matters to the electorate, and when and why that changes.

But after the votes have been counted and the predictions judged, the forecasters' work should not end. Their tools and methods can extend to people and policy too, and data is richest when paired with the voices of the people who generate it.

"A healthy democracy discusses the empirical signs of where the wind is blowing but recognises that wind shifts all the time," wrote FiveThirtyEight's Chadwick Matlin. "And when we do know where it's blown, journalists have to get dirty and jump in the leaf piles left behind."

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John Burn-Murdoch is away

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Don't let undue fear of competition rules hinder climate efforts

Congratulations to Kenza Bryan for her excellent piece on the financial alliance to limit global warming headed by Mark Carney, the former Bank of England governor ("Carney clings to his green dream", Big Read, November 10).

In it she refers to efforts to limit the availability of finance for new coal plants and the phasing out of coal-fired electricity generation (as required by the International Energy Agency based on the latest scientific research and the UN's "Race to Zero" initiative).

She accurately quotes me as saying that this raises "genuine issues" of antitrust, particularly in the US.

It does, indeed, but this has to be seen in two important contexts.

First, the vast majority of my work has shown that businesses can work together to fight climate change, and to move their industries on to a more sustainable basis, without facing competition/antitrust issues.

Undue fear of competition is holding back the vital work that business is so often willing to do. We cannot just rely on regulation and public sector initiatives, vital as they are.

Second, where there are "genuine issues", at the International Chamber of Commerce we are calling on "all governments and competition authorities to do everything possible within their own legal systems to reduce the disastrous inconsistency between the imperative of fighting climate change and competition policy", as our paper presented at COP27 this week set out.

We give real life examples of initiatives to fight climate change but where fear of competition law (whether well founded or not) is inhibiting progress. The ICC also sets out clearly what business needs from competition authorities and governments around the world.

Simon Holmes
Co-Chair, International Chamber of Commerce Taskforce on Competition and Sustainability
Member, UK Competition Appeal Tribunal
Visiting Professor in Law, University of Oxford, Oxfordshire, UK

Housebuilders have role in fostering energy efficiency

Ronnie George of Volution makes the sensible point that a comprehensive refurb programme could make the UK's homes more energy efficient ("Home energy efficiency lacking, says Volution", Interview, October 26). This is important but it's also crucial that Britain's new-build houses are as sustainable as possible. Unfortunately, that is not currently the case.

Most new homes in Britain are still being fitted with gas boilers even though they are a key contributor of CO_2. Heat pumps, which our homes are fitted with and which are recommended by the UK's Future Homes Standard for 2025, will help to cut the carbon footprint of Britain's housing stock.

It is fair to look to Rishi Sunak's new government to take action to support the sector, but it also falls on housebuilders themselves to do what they can to make homes greener and more efficient.

Andy Morris
Managing Director, Hayfield Homes
Solihull, West Midlands, UK

How to introduce more fairness to planning

Professor John Muellbauer's suggestion for a fairer way of sharing the uplift in land value when planning permission is granted, between developers/landowners and local government has much to commend it ("Growth-friendly reforms for the UK's broken planning system", Opinion, November 7). The author suggests a 50:50 split would be fair. This split is already approximately achieved through the existing, but often cumbersome and long drawn out, negotiations over planning obligations.

This occurs when developers contribute in kind or in cash towards infrastructure and affordable housing. All in all, these raised £7bn in 2018-19 in England, taking about a third of the land value uplift on greenfield sites with about another fifth going to HM Treasury in transactions and other taxes when land is exchanged.

Ensuring more of the uplift goes to local government and not the Treasury via a transfer of these taxes will help fund more of the infrastructure needed and reduce any residual reluctance on the part of local authorities to grant permission consistent with their plans.

This will introduce more fairness, not only between landowners and the state but also between central and local government in sharing what land value is captured.

In contrast, Muellbauer's proposals to change compulsory compensation rules by cutting out the "hope" value attached to sites with prospects of new development runs the risk of introducing an unfairness that his main proposal quite rightly seeks to

eliminate. In the past, when hope value was discounted where land was compulsorily acquired, other land changed hands at full market value: in effect, what owners got depended not on the development proposed but on the method of sale — compulsory to the state or voluntarily to a developer.

What we need is clarity in local authorities' local plans about how land is to be used, with additional clarity on how value is to be captured by specifying clearly the obligations sought. This will shape land values since developers will discount the costs they face in meeting planning obligations from the prices they agree when buying land.

In this way, landowners should be indifferent to selling to a local authority or to a private developer since they should get the same price, that is the market value for the proposed use less all the costs of the obligations.

We would suggest a 50:50 outcome whatever the means of sale, an approach which should reduce all the delays arising from contested compulsory purchase orders.

Professor Tony Crook
Emeritus Professor of Town & Regional Planning, The University of Sheffield, UK
Professor Alex Lord
Lever Professor of Planning
The University of Liverpool, UK

Art vandalism is odd way to defend a common future

Regarding Jemima Kelly's column about the vandalising of works of art ("The case for creative destruction", Opinion, November 3), nobody questions Just Stop Oil protesters' good faith. But vandalising irreplaceable works of art, a veritable part of humankind's heritage, is inconsiderate for future generations, selfish and somewhat paradoxical, coming from people who claim to protest to defend our common future.

Federico Salerno
London IG9, UK

Remember the real facts in Macron's Elysée return

While warning about the need to avoid hailing an *annus mirabilis*, Janan Ganesh may have been led astray by his enthusiasm for the re-election of Emmanuel Macron as his lead exhibit for the revival of liberal democracy ("This was the year liberal democracy fought back", Opinion, November 16).

Though the second round of this year's French presidential poll produced the inevitable defeat of Marine Le Pen, populist candidates of the far right and left took just over half the votes in the first round compared to 28 per cent for the man Ganesh dubs "the most successful electoral politician in the west". The subsequent National Assembly election saw the president's party losing a hundred seats and its parliamentary majority, while the collapse of the vote for the mainstream Republican and Socialist parties points to the further rise of extremism populism. Hardly the "fortifying" picture Ganesh paints, at least as far as France is concerned.

Jonathan Fenby
London WC1, UK

A Datawatch chart FT readers are sure to notice

Your interesting "Datawatch" chart (November 16) shows US credit card debt soaring upwards "asymptotically" towards $1,000,000,000,000 (one trillion), while personal savings have plunged to a new low, levelling off close to zero.

Seemingly this chart would not go unnoticed by the savvy, global FT readers. Perhaps similar charts for total US debt, including unfunded liabilities, cryptocurrency balances and interest rate derivatives would also be of keen interest.

Of course, these charts would need to be on a logarithmic scale for the (vertical) Y axis. Credible data should be readily available.

Chris Kniel
Orinda, CA US

Cost of San Francisco's sea walls is measure of the task

John Browne's article "When it comes to climate, we must start thinking about Plan C" (Opinion, November 15) notes that "adaptation is likely to be even more difficult to finance than mitigation". And far more expensive!

San Francisco International Airport, for example, has approved a $590bn plan to build 10 miles of sea wall to "adapt" to sea level rise and storm surge.

What is 10 miles of shoreline relative to the perimeter around Shanghai, Hong Kong, New York City, Amsterdam, Tokyo and so many other great cities?

Sim Gurewitz
El Cerrito, CA, US

Negotiations at COP27 ignore conflict sensitivity

Michelle Williams ("Africa's fragile food and water security threatens us all", Opinion, November 10) rightly argues that climate insecurity has placed the Horn of Africa on the verge of a humanitarian catastrophe. The global north's habit of imposing climate solutions does indeed have a record of failure; local solutions are the only solutions.

Missing from this analysis and from the negotiations at COP27, however, is the importance of conflict sensitivity.

The impact of climate change is most apparent in countries already affected by violence. Environmental pressure acts as a "threat multiplier" that aggravates volatile political situations.

Climate adaptation investments, if not done sensitively, may exacerbate existing conflicts or create new ones, as we have seen in several places in east Africa. Any investment must be conflict sensitive.

Without adequate attention paid to the implications for peace and stability, climate mitigation efforts will continue to be undermined. Peacebuilding and climate adaptation go hand in hand.

If conflict remains absent from the agenda, then global climate negotiations will fail those most in need.

Rabindra Gurung
Country Director — Kenya and the Horn of Africa, International Alert, Nairobi, Kenya

Paper preference can mark you out in the digital world

Gillian Tett (Opinion, Magazine, October 22) misses a couple of key factors in explaining the stubborn persistence of paper in a digital world. One is very surprising given she is an anthropologist by training.

First, on the reason people prefer to make paper tax returns, there is no account of the demographics behind this trend. One might suspect it is the digital immigrants rather than digital natives.

Second is a technological factor. There is far less risk of making an error completing the return by hand than online where technological functions such as auto-correct can easily seduce one into including false data.

Tett also cites the rise in sales of greeting cards. These convey a much higher level of sincerity and effort: with no auto suggestion/correction, every word and sentence thought through.

Furthermore, cards on a shelf can be seen as a trophy and mark of a relationship (for both sender and recipient). Therefore, it is not so curious that it is millennials (digital immigrants) who are contributing to the rise in sales. It can be very hard to differentiate yourself in the digital world; this is one way.

Monica Seeley
Bournemouth, Dorset, UK

Opinion

FTX shows founders can still conjure up 'reality distortion field'

TECHNOLOGY
John Thornhill

Jaded journalists on Fleet Street used to say that some stories were just too good to check. That sentiment appears to have been reworked by venture capitalists on Sand Hill Road: some stories are just too good not to back. So it was with Sam Bankman-Fried: a seemingly brilliant and altruistic cryptopian who appeared to magic up money at will and promised to give it all away to the most needy. The trouble is that Bankman-Fried's crypto trading empire FTX has collapsed, swept away in a torrent of anger, recrimination and allegations of fraud. "I fucked up . . . big . . . multiple times," he wrote in a series of messages to a Vox reporter this week.

At first, Bankman-Fried neatly fitted the pattern-recognition algorithm of Silicon Valley that decides whether big ideas are backed and start-ups funded. In many respects, he was the archetypal founder with his daring plan to disrupt the fat and lazy finance industry. Son of two Stanford academics, a physics graduate from the Massachusetts Institute of Technology and a risk-taking trader at Jane Street, Bankman-Fried had enough credentials to win him credibility. His somewhat obsessive, if not crazed, personality (reflecting the brain of Spock and the dishevelled appearance of Fozzie Bear according to one writer) added an endearing charm.

A gushing 13,000-word profile of the founder commissioned and published by the VC firm Sequoia Capital, which backed FTX, was headlined: "Sam Bankman-Fried Has a Savior Complex — And Maybe You Should Too." His trading prowess in arbitraging away the "kimchi premium" between the price of bitcoin in Asia and the rest of the world was compared with that of George Soros. His plan to create an all-in-one financial superapp — and his bailing out of other troubled crypto companies — was likened to the ambitions of John Pierpont Morgan, who restructured finance for the industrial age. One mesmerised Sequoia partner was reported as saying: "I LOVE THIS FOUNDER." According to PitchBook, a total of 86 investors, including Paradigm, SoftBank, Tiger Global and Ontario Teachers' Pension Plan, backed FTX to the tune of $2bn. With a personal net worth of some $24bn, 30-year-old Bankman-Fried was

> Investors' hubris detection meters need to start twitching when celebrities flock to lavish conferences

"obviously a genius" on track to become the world's first trillionaire, the article concluded. (Since FTX crashed, the profile has been taken down, suggesting Sequoia's belief in immutable records may be restricted to the blockchain).

It was Apple's co-founder Steve Jobs who was credited with creating a "reality distortion field", exhibiting a head-spinning ability to convince anyone of practically anything. "The reality distortion field was a confounding melange of a charismatic rhetorical style, an indomitable will, and an eagerness to bend any fact to fit the purpose at hand," one Apple employee wrote of Jobs. That set a myth-making pattern that several entrepreneurs have since tried to mimic — with mixed success. Elon Musk has perhaps been the most Jobs-like in bending reality to his will at Tesla and SpaceX (although reality is proving more resistant at Twitter). But Adam Neumann at WeWork, Elizabeth Holmes at Theranos and now Bankman-Fried at FTX have tried and spectacularly failed to sustain a similar reality-distorting trick.

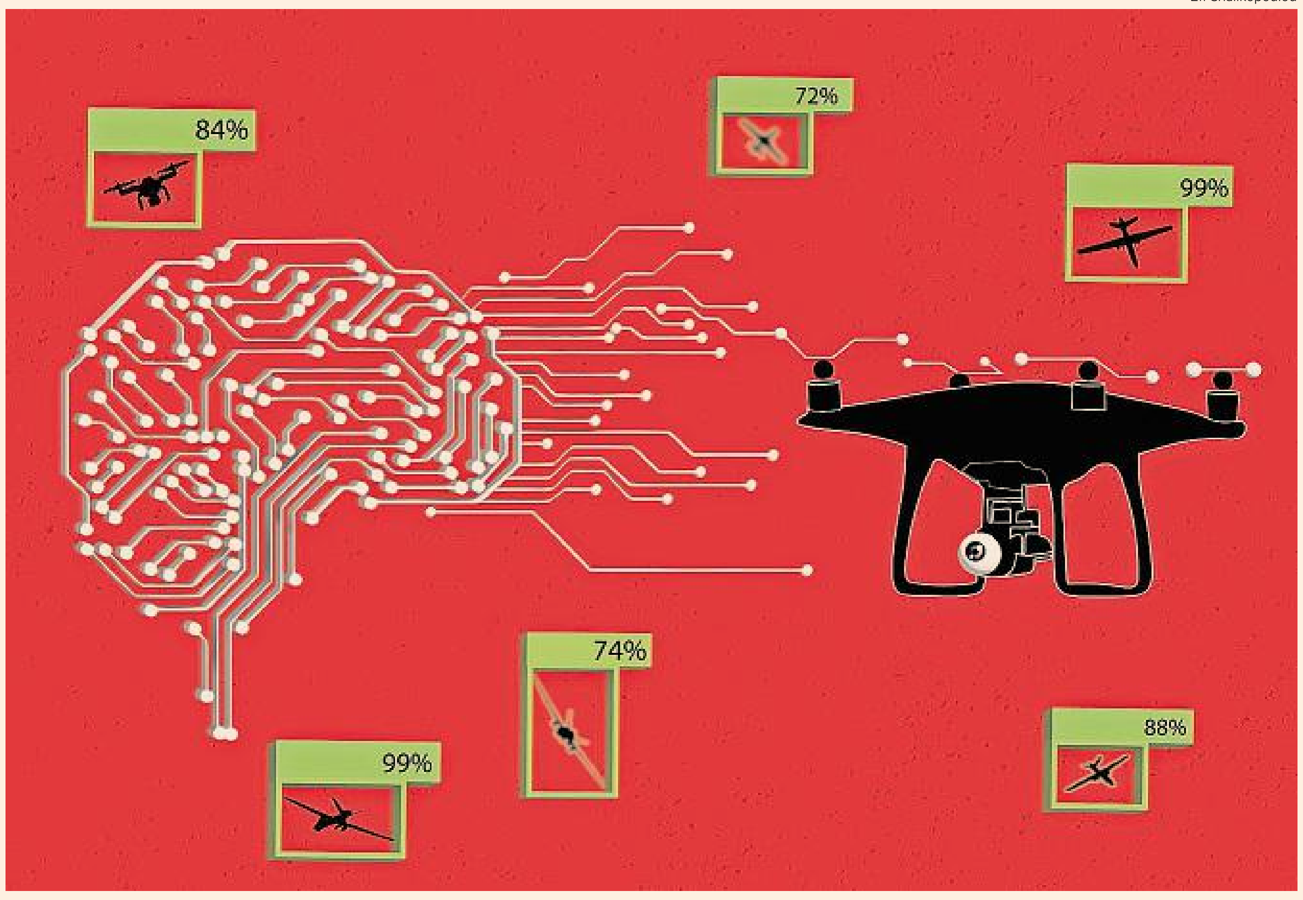
At FTX, it is clear that investors should have discounted the crypto hype and dug deeper into the interconnections between FTX's trading platform, its Alameda Research trading fund and the crypto tokens it created. They might also have questioned whether Bankman-Fried, who boasted that he would never read a book, really was the visionary who was going to revolutionise finance. Their hubris detection meters should have started twitching when celebrities and fading political rock stars, such as Bill Clinton and Tony Blair, flocked to his lavish conferences. And FTX's Super Bowl commercial indirectly comparing Bankman-Fried with Thomas Edison should have moved the meter's needle into the red.

After researching the world's few, uncontested, geniuses, Yale University historian Craig Wright concluded that we need better metrics for identifying remarkable talent. High IQ scores and degrees from prestigious universities have historically proven poor indicators: they generate too many false positives and false negatives. As one undisputed genius Albert Einstein is supposed to have said: "If you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."

The ability to extract large amounts of money from credulous investors and bilk your customers may count as a particular, if perverse, skill. But it does not count as any kind of genius.

The writer is founder of Sifted, an FT-backed media company covering European start-ups

Military tech is Kyiv's surprise weapon



Efi Chalikopoulou

UKRAINE
Gillian Tett

The collapse of Sam Bank-Friedman's FTX empire this month has visibly damaged other crypto players. But it has also had another, less obvious, impact: on a network of Ukraine-linked technologists.

The philanthropic FTX Future Fund had recently been providing discreet support to entrepreneurs developing innovative military tools for Ukraine. These technologists are now, they tell me, scrambling to find alternative donors after the "painful" shock of the exchange's downfall.

I hope they find some. But this latest crisis underscores a wider point: the nine-months-long war in Ukraine has unleashed some unorthodox grassroots innovation that investors and policymakers would do well to watch. Most notably, a global network of tech talent has emerged that is sympathetic to Ukraine's cause; partly because the country hosted numerous information technology services for companies across the world before the war.

As Ukrainians use this network to scramble for ideas they can test, or "hack", on the battlefield, this is sparking some "extraordinary innovation", as Brad Smith, president of Microsoft recently noted. It is also quietly reshaping some elements of the business of war. In 20th-century America, breakthroughs in military tech tended to emerge either from gigantic companies such as Lockheed Martin or Raytheon, or from government-funded institutions like America's Defense Advanced Research Projects Agency (Darpa).

The latter produced innovations such as global positioning systems and drones, which were subsequently absorbed into civilian tech. However, today there is a surge in rapid grassroots improvisation among so-called "non-state actors", including terrorists. One example is reports that Houthis are using 3D printers to manufacture drones in Yemen.

What is striking about Ukraine, however, is that thanks to the internet, decentralised networks are improvising on a large scale. Sometimes this involves tech giants. Google has offered support in both visible and less visible ways. (One example of the former is that it has sometimes switched off parts of its traffic locator maps to help assist the Ukrainian defence.) Microsoft has also provided cyber security support — although even Smith notes that it is the nimble response of the Ukrainians themselves which has been crucial in fending off Russian attacks.

Meanwhile Elon Musk's SpaceX has supplied civilian Starlink internet terminals to enable Ukraine's satellite communications. He subsequently got cold feet, suggesting he had never intended them for military use. But I am told the Ukrainian tech network is now feverishly testing alternative satellite systems to support soldiers on the front line.

What is more noteworthy, however, is the role of young tech companies, mere toddlers on the innovation scene. Drones are a case in point: smaller companies such as America's Dedrone, Turkey's Baykar Technologies and Germany's Quantum-Systems are the focus of rapid innovation. And consumer tech — which has become so powerful and cheap in recent years — is being commandeered by entrepreneurs in striking ways.

In the months after the Russian invasion, Ukrainian techies worked out how to put grenades on the type of cheap consumer drones sold online by companies such as DJI. They repurposed systems from companies like Dedrone to help combat Russia's Orlan surveillance drones.

> Grassroots entrepreneurs are improvising on a large scale to develop battlefield tools

I am told some Ukrainian battalions are now trialing ways of countering the "swarms" of Iranian Shahed-136 drones that are currently being deployed by Russia. One idea is to use Bayraktar drones as quasi "sentries", possibly with artificial intelligence capabilities (a move that would potentially take drone-on-drone warfare to new levels).

Meanwhile, seven maritime and nine aerial drones were recently dispatched, apparently by Ukraine, to attack Russian vessels in the strategic Black Sea port of Sevastopol. The bold move startled some military observers, who dubbed it "a glimpse into the future of naval warfare". Kyiv has apparently developed naval drones that feature a propulsion system from a popular Canadian jet ski brand. This gives a new twist to the idea of dual-use tech.

The Ukrainians are certainly not alone in this repurposing: unexpected pieces of consumer tech from all over the world (even Israel) are also appearing in Iranian drones. But what is striking is Ukraine's decentralised power structures — the grassroots entrepreneurs have a sense of agency that is rarely found in Russia, where vertical hierarchies dominate in military and civilian society alike. As commentators on Russian state TV have noted themselves, the culture of a country's army invariably reflects its national identity.

Of course, such grassroots innovation has its limits: it cannot fix Ukraine's desperate need for more powerful long-range missiles, or better air defence systems. It also needs reliable sources of funding, as the dance with FTX Future shows.

But this new wave of technology has already changed the trajectory of the war. And for those military strategists outside Ukraine, it will provide study materials for years to come. If and when the war ends, it may even offer a way for Kyiv to create a cutting-edge civilian tech sector. Here's hoping.

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Trade should play its part in saving the planet

GLOBAL ECONOMY
Alan Beattie

For decades now, environmentalists and free-traders have circled each other warily in mutual suspicion. Dating back to the time green campaigners helped to collapse the disastrous 1999 World Trade Organization conference in Seattle, each tends to regard the other as, respectively, planet-destroying neoliberals or Luddite protectionist ignoramuses.

This long-term dysfunctional relationship means missing a big opportunity — a strong trade dimension was notably absent from the COP27 climate conference in Egypt. There has been a rise in defensive environmental measures in trade, levelling the international playing field to protect businesses from imports produced to lower standards. But given improvements in green technology, from renewables to electric cars, the drive to cut carbon emissions needs open trade and technology transfer.

In recent years, addressing the environment has mainly meant bolting increasingly complex additional chapters on to traditional preferential trade deals, or PTAs, that set conditions for better market access. Quite often, environmental issues stop trade deals getting done. The prospects of an EU agreement with Indonesia have been dimmed for years by the European parliament in effect blocking imports of palm oil because of worries over deforestation — a concern now extended to restrictions on a whole range of products.

Not wanting to give environmental villains an advantage, the EU's other big contribution is the proposed carbon border adjustment mechanism to prevent "carbon leakage" of emissions-intensive industries moving abroad.

Some of this may be fine as far as it goes, though sceptics are right that green provisions can get misused for protectionist ends. Research shows green conditionality has reduced exports from countries to the EU under PTAs; whether that actually benefits the environment or not is debatable.

But equalising environmental standards doesn't by itself produce and disseminate the technology to build a prosperous low-carbon future. In fact, the growth of new sectors frequently kicks off fresh trade wars, as producers try to establish a dominant position in markets with first-mover

> A vague sense that world commerce is bad for the climate has rarely been challenged

advantage and economies of scale.

The installation of solar panels in the world's big economies has been retarded and complicated by a series of trade disputes going back a decade, European and US producers complaining about competition from China. There have been similar rows over e-bikes and windpower equipment.

To be fair, since the solar trade wars started, the danger of being dependent on China for hard-to-replace technology has increased. Beijing is increasingly willing to use economic coercion.

It makes sense for economies, middle-income as well as advanced, to diversify their supply networks. But resilience frequently overbalances into protectionism. Reducing reliance on China shouldn't mean automatic onshoring. If every economy in the world tries to develop its own technology and domestic industry, there will be a vast and inefficient archipelago of discrete markets rather than an efficient critical mass.

There's a compelling case for government investment in green technology, given the environmental benefits. But tying that spending to local content requirements, as the US is notoriously doing with its electric vehicle tax credit, is not a sensible way to do it.

Governments may do well to invest lavishly in supporting new cutting-edge products. But a subsidy race where onshoring concerns trump efficiency is not the way to create and spread the best technology. It's more likely to prompt irritated trading partners to respond with import duties on products they deem dumped or unfairly subsidised.

The trade aspect of technology and climate change has been seriously neglected. Talks among a coalition of (initially) willing countries over cutting tariffs on goods to benefit the environment started at the WTO in 2014. They ran into trouble when the EU in particular objected to China's perfectly reasonable contention that bicycles were environmentally friendly products.

Moreover, a vague sense that global commerce is bad for the planet because of cargo ships and freight planes burning fossil fuels has rarely been challenged. In fact, international freight transport is on average considerably less than half the carbon footprint of traded goods.

Globalisation and open trade are never all good or all bad, though they tend to the former. They certainly don't bear the main responsibility for the state of the planet, but they could play a much bigger role in improving it.

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Proposed US crypto regulation may be a Trojan horse

Hilary Allen

After the spectacular failure of crypto exchange FTX International, there have been renewed calls for crypto legislation (including from the industry itself). But many of the proposals so far would be worse than the status quo — at least for the general public. Crypto firms such as FTX were involved in drafting many of the mooted US bills. The exchange's implosion should not become a pretext for rushing these into law.

It is unfortunately true that many of FTX's users have suffered mightily. The good news is that the broader economy hasn't suffered as a result of its failure (the fallout from crypto flops such as Terra/Luna and Celsius this year was similarly limited). Since crypto isn't integrated with the traditional financial system, the pain has not spread to those who chose not to invest in the first place.

US banking regulators in particular have stood firm against the merging of crypto with traditional finance. Legislation that legitimises crypto could very well break this down, in which case future crypto failures will be more likely to disrupt broader economic growth. Government officials may even feel compelled to step in with bailouts when the next crypto firm implodes. Policymakers should beware legislation that positions crypto as yet another financial market that is "too big to fail".

There is also a danger that crypto legislation may be misinterpreted as a government "seal of approval", encouraging sceptics to invest their money. This is particularly a risk of the proposed

> Creating bespoke rules could lead to traditional financiers sidestepping existing frameworks

stablecoin legislation. The primary use case for stablecoins is speculating in decentralised finance, not — as is often claimed by industry proponents — for making payments. Stablecoins are not a great way to make payments, but the proposed bills would all extend some form of government safety net to them. If that encourages people to start using them for payments, then it could put governments and central banks on the hook in the event of stablecoin runs.

Legitimisation is not the only Trojan horse embedded in these crypto bills. Any legislation that creates a bespoke crypto regulatory framework will create opportunities for traditional financial assets to migrate into the new regime and so sidestep existing financial regulation. This problem is unavoidable because it's impossible to define "crypto asset" (or "digital asset" or "digital commodity") in a way that excludes traditional financial assets.

Ultimately, there's nothing particularly special about crypto assets. They are just computer files, whose ownership is recorded on a blockchain (a type of database). Pretty much any financial asset could be represented as a computer file, and the ownership of any such computer file could be recorded on a blockchain. If the bespoke crypto regulatory regime is "lighter touch" than those for other financial assets, it's going to be tempting for financial asset providers to put those assets on the blockchain (something that JPMorgan is already experimenting with).

Not only is this a path to deregulation, it is a path to poor financial infrastructure. Traditionally, critical infrastructure providers are subject to strict regulations, whereas blockchains are open-source software, maintained by unidentified and unaccountable developers. Do we really want our financial system to rest on such shaky foundations?

It's not yet clear what happened at FTX, although many reports suggest illegal activity was involved. The US Securities and Exchange Commission, Commodity Futures Trading Commission and the Department of Justice are already investigating — and within the existing legal framework. If any new legislation *is* adopted after FTX's failure, that legislation should make clear that existing laws apply to crypto (and if a crypto product or service can't comply, then it shouldn't exist). This is not the time to adopt new crypto legislation drafted at the industry's behest.

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Lex.

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UK economy: gimme, gimme shock treatment

Chancellor Jeremy Hunt resembled a brainy physician advising a worried patient yesterday. The unorthodox therapies of an alternative practitioner had done more harm than good.

The prognosis was worse than expected, he said — the UK economy would contract by 1.4 per cent. With the deficit ballooning, conventional medicine was the only hope, via tax increases and spending cuts worth an estimated £55bn a year by 2027-28.

For global investors, the fact that the statement was detailed mattered more than the details themselves. Hunt established his credentials for economic orthodoxy a month ago when he unwound predecessor Kwasi Kwarteng's loopy growth plan. The Autumn Statement merely showed he might credibly fund his promises, which Kwarteng could not. Gilt yields rose to 3.2 per cent and sterling slipped to $1.177 on a dire outlook rather than a disastrous chancellor. Stock movements showed little correlation to measures, which were heavily trailed.

Centrica and SSE bounced, as if relieved that the blow had finally fallen. Hunt jacked up the windfall tax on energy profits from 25 per cent to 35 per cent. He announced a further 45 per cent levy on the revenue that larger renewables generators make over £75 per megawatt hour. That tariff threshold was higher than forecast.

But renewables may get a fillip from another measure. Tests for the predictability of investment cash flows will ease. They had favoured mines that reliably produce coal over wind farms that harness unreliable breezes.

Capital requirements will be cut, too. That should free up some £100bn, according to the Association of British Insurers. Not bad as Brexit dividends go, though flexible buffer capital was never a doorstep icebreaker for Ukip canvassers in 2016. Euphemists may savour the Treasury's move to "rebalance generosity" by delivering a sharp cut to R&D tax credits for small businesses and save £1.3bn a year. The hefty tax break may encourage fraud more than innovation. The reform, to paraphrase UK crime dramas of yore "had Rishi Sunak's dabs all over it".

The prime minister took a swing at R&D tax credits in his Mais lecture this year. The Autumn Statement, given Sunak's prior stint as chancellor, was as much his as Hunt's. Investors love it when their special friend the finance director is promoted to CEO. And that apparently applies to Sunak, too.

Target: off the mark

Depending on where you looked this week, American consumers either have their backs up against the wall, or they are holding up just fine.

Target on Wednesday cut its forecast for the holiday season following a surprisingly big drop in third-quarter profits. "Spending patterns changed dramatically" at the end of the third quarter, the company cautioned. Target shares tumbled 13 per cent.

Yet a day earlier, rival big-box retailer Walmart delivered better than expected third-quarter results and said earnings this year would not fall by as much as feared. Its shares closed 7 per cent higher on the day.

It helps that Walmart is a much more grocery-heavy retailer. It generated about half its sales from food in 2021, while the figure for Target was just 20 per cent. This leaves Target — better known for cheap chic offerings in clothes and home furnishing — more exposed to the fall in discretionary spending as Americans focus on essentials such as food and fuel.

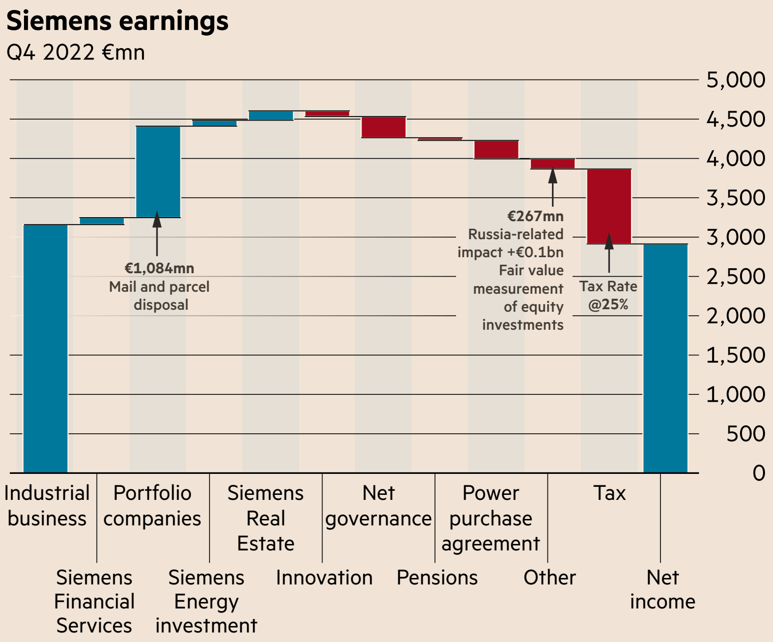
Target's former strengths are now a weakness. Like-for-like sales are expected to decline in the single-digit range in the fourth quarter. Operating margins will fall by more than half to around 3 per cent amid heavy discounting. Target's share price has dropped 40 per cent this year, while that of its rival has climbed. At 15.5 times forward earnings Target trades at a 33 per cent discount to Walmart.

Target has long taken a cautious approach to ramping up its grocery offerings because of the razor-thin margins. Instead, under Brian Cornell, who took the helm in 2014, Target invested billions of dollars to revamp its stores and ecommerce strategy and expand its high-margin private labels.

Current economic conditions do not play to Target's strengths. But investors should keep the faith. Over a five-year period it has still outperformed Walmart — gaining 171 per cent against Walmart's 52 per cent. Given its relative value, investors can afford to take the long view on Target.

Siemens: recovery code

Record profits at the German industrial giant were boosted by asset disposals this year. The conglomerate's strategy of divestment and streamlining has helped its shares outperform. Recurring revenue growth underscores Siemens' sharper focus on technology and software.



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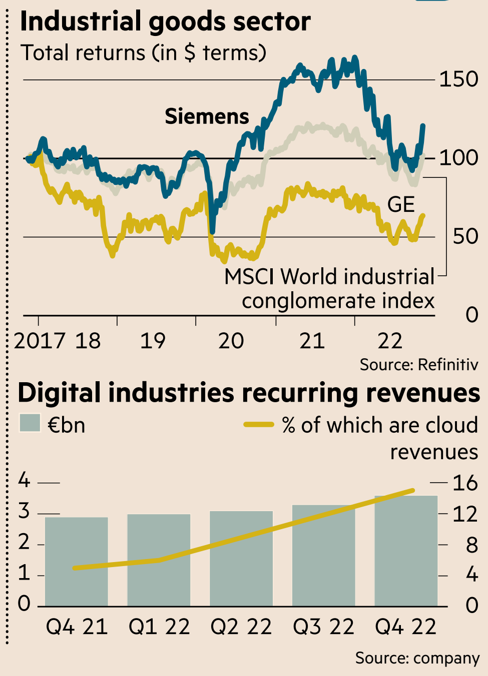

Ill winds from the energy crunch are doing little to bluster Siemens. The German industrial titan reported results yesterday well ahead of expectations. Full-year profits from the industrial business hit a record €10.3bn. New orders and revenues were both a tenth better than analysts expected. A bullish outlook helped push shares up more than 7 per cent in morning trade.

Chief executive Roland Busch will continue the legacy of his predecessor of streamlining the conglomerate to focus on core digital products. Busch wants to combine five businesses involving drives and motors into a new company next year with 14,000 employees and annual revenues of €3bn.

A spin-off or sale can be expected once that is complete. Assuming similar earnings and valuation as competitor ABB, this motors/drives unit might be worth €9bn — roughly a tenth of Siemens' market value.

But it is Siemens' digital industries, which house software and automation businesses, that provide most of the optimism. Revenues in the most recent quarter grew 18 per cent year on year and a €14bn order book is a record.

Automation revenues up 23 per cent outpaced those at divisions of rivals Schneider and ABB in the latest quarter, notes Jefferies.

A company growth target of 12 per cent next year is three times higher than consensus had been pencilling in.

Recurring revenues of €3.6bn were 14 per cent higher than last year. Importantly, cloud revenue growth was stronger; 15 per cent of the total up from just 5 per cent a year ago.

At 14 times forward earnings, the valuation is in line with its 10-year average but well below peers trading closer to 20 times. The strength of the German group's free cash flow can help close that gap.

Analysts have already forecast the group will increase free cash flow by more than half by 2025 to more than €10bn, which should mean more dividends to shareholders.

Siemens' restructuring appears to be working. Its valuation discount plus the secular growth from its automation business should support the shares.

European defence: more runway

When Germany upped its defence budget after the outbreak of war in Ukraine, its first big decision was to buy F-35 fighter jets from the US. That raised fears that a chunk of Europe's new wave of defence spending would be invested in US off-the-shelf kit, rather than the retooling of its fragmented domestic defence industry.

Reports that the next phase of the Franco-German Future Combat Air System (FCAS) programme, led by Airbus and Dassault Aviation, is set to get the green light should reassure.

FCAS has struggled. Other military collaboration programmes have had mixed fortunes. Eurofighter's Typhoon jet, produced by a group including Britain's BAE Systems, has had its share of hiccups. Every country has its own supply ecosystem that it would like to use. The real battles are over maintaining domestic workforces and controlling the technology used.

The risks involve cost overruns but also a lack of scale. There are other jet fighter programmes in Europe already, including Tempest, the Anglo-Italian rival. But pooling resources is useful in the face of the US behemoth, where military spending topped $800bn in 2021. Lockheed Martin's market value at $122bn is not far from that of Airbus, Dassault, BAE and Italy's Leonardo combined. In an ideal world it would be logical for FCAS to link with Tempest.

If FCAS does get off the ground, that should benefit Airbus and Dassault. FCAS will not contribute to profits or cash flows anytime soon. But a next-generation project adds longevity to the business models of both companies. At the margin, this should support valuations. Dassault's enterprise value is 9.4 times next year's ebitda, on S&P Global estimates. Airbus's is 8.9 times. Both are at a steep discount to Lockheed Martin on 13.2.

Reviving FCAS also suggests that — amid a spate of disagreements — the Franco-German alliance still holds. With a conflict on Europe's borders and looming energy and economic crises, that alliance offers some reassurance.

FTX: four silos of the crypto apocalypse

Bankruptcy proceedings are about locating assets, determining what they are worth, then distributing them to whoever they rightfully belong. Based on this, the FTX Chapter 11 case can be confirmed as an official nightmare.

Yesterday, new chief executive John Ray III wrote in court papers that the FTX debacle was "a complete failure of corporate controls and [demonstrated] such a complete absence of trustworthy financial information". Ray helped clean up Enron so presumably he is not easily disturbed.

In the filing, Ray delineated the four silos of FTX operations. These were a US-based trading platform, a segment making venture capital-like investments, the Alameda Research crypto trading arm and the main offshore unit. The last held the bulk of customers' accounts.

Proper cash controls, corporate governance and bookkeeping are basically non-existent, Ray found. Crypto assets are missing, with forensic investigators trying to track them down in cyber space.

How the silos shuffled money around is not well understood. Alameda Research, according to its balance sheet from September, was owed billions personally by FTX management. That includes the deposed Sam Bankman-Fried. Ray said the financial statements he could find were unreliable, implying the calamity is even messier than first thought.

One key item conspicuously missing from statements is the value of FTX customer crypto accounts. At one point those had been estimated to be $10bn to $15bn. FTX customers will be the ultimate creditors in this bankruptcy.

Customers will need to fight with other claimants for the scraps of crypto that can be found. That includes battling over the value of litigation claims against the company and its executives who caused the collapse.

Finding and distributing assets to share with creditors will take years of toil. And after all that, do not expect them to be pleased with what remains.

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CROSSWORD

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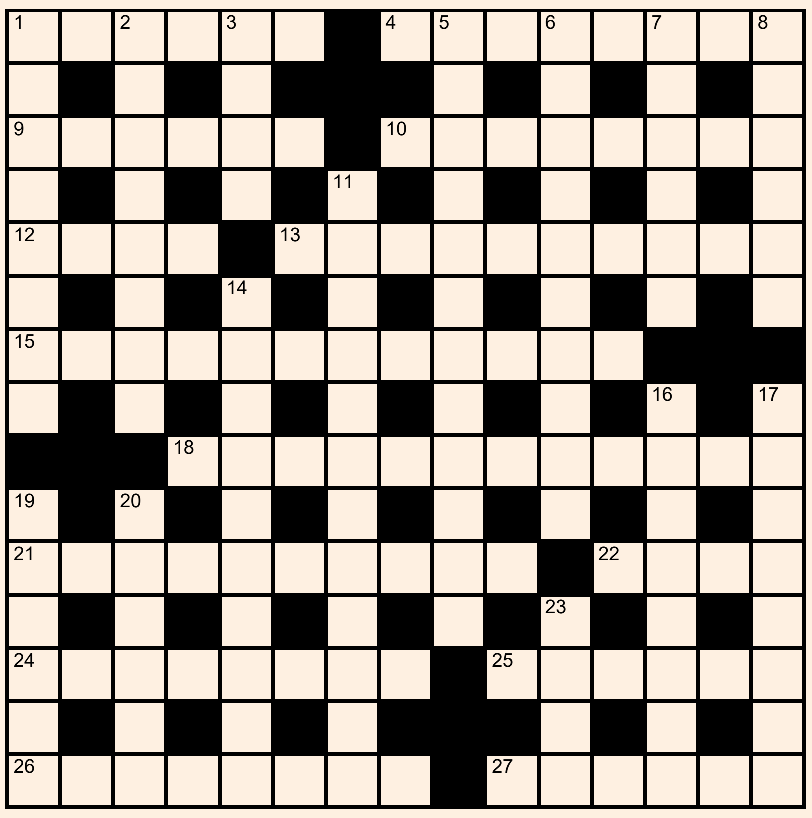


ACROSS

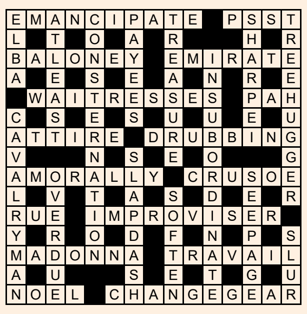
1 Prevent small fairy taking it back (6)
4 Bent fictional detective seen in books by Poe regularly (8)
9 Musician heading off to find help (6)
10 More unusual coming from an outsider (8)
12 Ear-splitting, not quiet, by small stream (4)
13 Heard reportedly by eccentric son of king and queen (5,5)
15 Much to take into account before Lincoln tours Louisiana's capital (12)
18 Dejected by widespread desolation around South Carolina (12)
21 Drug free Noel with band taking in LA (10)
22 Confront female expert (4)
24 Muse about everybody that's without work (8)
25 Male Carroll character's evil intent (6)
26 Realise shortly before old queen goes around popular theological college (8)
27 Become less intense about getting a fast time (6)

DOWN

1 Fake diamond becoming country's emblem (8)
2 Disrespectful during solitary meeting with conservationists (8)
3 Excellence not initially shown by girl (4)
5 Going into hiding ain't awfully amusing (12)
6 Risk having list of names raised by honorary university head (10)
7 Risks ignoring duke in French town (6)
8 Refuse to hold Henry's party (6)
11 Fail to arrive before a policeman arrests Rex (4,1,7)
14 Oil giant worried over the Italian judicial proceeding (10)
16 Show off around island in a state of bliss (8)
17 Residential building providing temporary accommodation to house English soldiers (8)
19 A copper breaks graduate's calculator (6)
20 Look into harsh criticism of one type of race (6)
23 Make less difficult with each step oddly (4)

JOTTER PAD

Solution 17,254



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The Business of Formula One

Friday November 18 2022

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Gulf's growing influence fuels debate

Investment boosts sport but ethical issues hover in background. By *James Allen* and *Samuel Agini*

Taking a fine line: Lewis Hamilton steers his way round the circuit in Doha in the inaugural Qatar Grand Prix last year — Clive Mason/Getty Images

This year's football World Cup in Qatar may generate more headlines, but the Gulf region has also quietly amassed a central role in the calendar, staging and economics of Formula One racing.

Widely seen as the pinnacle of motorsport, F1 is gaining prominence in a region that is rapidly establishing itself as a hub for sports and entertainment. The Gulf's growing influence — made possible by oil and gas-dependent economies pivoting to new sectors such as tourism, technology and renewables — is visible throughout the sport, from racing circuits to team ownership and lucrative sponsorships.

Qatar will next year rejoin a race calendar already bookended by Bahrain, Saudi Arabia and Abu Dhabi. And some of the sport's biggest sponsors now hail from a region that helped F1 increase its "primary" revenues by more than $300mn to $1.5bn in the first nine months of 2022 year on year. Among them is Saudi state oil group Aramco.

Under the direction of Liberty Media, which acquired F1 in an $8bn deal in 2017, the sport has continued its expansion outside its traditional European home markets, with Netflix's *Drive to Survive* documentary series credited with increasing interest in the US. But, in addition to adding races in Miami and Las Vegas, Liberty has signed up new events in Saudi Arabia and Qatar.

The Middle East is viewed by F1 as a "huge growth market", says Chloe Targett-Adams, global director of race promotion for the race series. "There's an amazing demographic and fan base there," she says. "We're seeing the fan base getting younger . . . we're seeing more women, which is reflective of that wider shift for F1." The region's influence extends to the senior governance level, after Emirati former rally driver Mohammed Ben Sulayem won last year's election to replace Frenchman Jean Todt as head of the Fédération Internationale de l'Automobile (FIA), the motorsport's governing body.

The growing popularity of F1 is already changing local attitudes. Ben Sulayem says that karting — the established gateway for young drivers to F1 — has usurped rally driving in the Middle East and north Africa as young people try to climb the "challenging ladder" to the grid. "Without question, the Abu Dhabi GP is the biggest sporting event in my country," he says.

The FIA president's home race at the Yas Marina Circuit was, however, also the setting for one of the most infamous moments in F1 history, when Mercedes driver Lewis Hamilton lost the 2021 drivers' championship to Red Bull's Max Verstappen in controversial circumstances on the final day of the season. More than 108mn people watched the race around the world, an increase of 29 per cent on the prior year.

While the refereeing error — which was made under the prior FIA regime —

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The 2023 Grand Prix down the Strip marks an acceleration in the chase for US audiences
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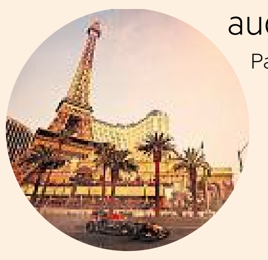

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SOME READ LEGENDS, OTHERS WRITE THEM
CONGRATULATIONS MAX AND ORACLE RED BULL RACING

DRIVER AND CONSTRUCTOR WORLD CHAMPIONS

TAG HEUER MONACO

McLaren pins its 2023 hopes on Oscar Piastri

Interview Two suitors already battled it out over the 21-year-old, writes *James Allen*

This has not been McLaren's year. When the 2022 Formula One season roars to a close this weekend in Abu Dhabi, the team will have scored a fraction of the points of its top three rivals in the championship.

But whether 2023 will be any better hinges on a radical plan: McLaren has bought out the contract of eight-time Grand Prix winner Daniel Ricciardo a year early and replaced him with another Australian: the 21-year-old Oscar Piastri.

With Lando Norris as his teammate, it will mean McLaren fields one of the youngest teams on the F1 grid, with an average age of just 22.

"We are extremely excited that we have an experienced and yet youthful line-up moving forward," says Zak Brown, chief executive of McLaren Racing. "We think Oscar has the raw talent and the dedication to be a future world champion."

On paper, Piastri certainly looks like a generational talent. He breezed through the junior categories, winning the F3 and F2 feeder championships, each time in his debut season. Normally, top drivers require two seasons at each level: one to learn and a second to win.

If this surprised Piastri, it also seems to have caught out his longtime backers, the French Alpine team, which did not have an F1 car ready for him for 2022, as Fernando Alonso and Esteban Ocon were under contract. So, Piastri has spent this season in a reserve role, which meant no racing, but some valuable testing experience and backroom simulator work.

Meanwhile, as Ricciardo's form dipped alarmingly, Brown and his F1 team principal Andreas Seidl became aware that Piastri had a get-out clause in his Alpine agreement and pounced. When Alonso stunned Alpine in August by announcing he had signed to Aston Martin for 2023, Alpine initially announced Piastri as his replacement — only for Piastri to rebuff it on social media and reveal he had already signed with McLaren.

Ready for action: Oscar Piastri will make McLaren one of the youngest teams on the F1 grid
Daniel Pockett/Getty Images

F1's contract recognition board was called in to resolve the dispute and ruled in McLaren's favour, leaving Alpine empty-handed.

Piastri acknowledges that it is a lot of effort, money and commitment for a high-profile brand, like McLaren, to show to a rookie.

"Motorsport is an incredibly cut-throat and serious business," he says. "It is a massive show of confidence and faith that made me appreciate their commitment to me, knowing everything that had to go on to make this possible." McLaren, he says, "have shown time and time again that they're capable of nurturing young talent" — previous success stories include Mika Häkkinen, Lewis Hamilton and Piastri's teammate Norris.

Commitment is not only evident on McLaren's side, though. Piastri has dedicated himself to motorsport for years. After proving as a child that he could compete with Europe's best talents in karting, he chose to come the UK, alone, at the age of 14.

> 'I've had this year to get into the F1 mindset. I adopted the lifestyle of an F1 driver, just without driving'

"My dad said, 'I'm happy for you to keep doing this'," he recalls. "'But you're going to have to be here full time and you'll be here by yourself. I'm going back home to mom and your three sisters.' So I had to make a pretty big call on whether I wanted to stay in Europe or go back home. It's worked out well."

Piastri attended Haileybury, a boarding school in Hertfordshire, where he gained A-levels — typically required for university entrance — in maths, physics and computer science, despite a 37 per cent attendance record in his final year, due to international racing commitments.

"It's definitely made me mature a lot quicker than I otherwise would," he says. "When you go to the other side of the world at 14 years old, you have to grow up pretty quickly and learn to do things by yourself."

Piastri comes across as serious and thoughtful — much less of a joker than the driver he is replacing. His record in the junior categories demonstrates an ability to work around problems to unlock the speed that brings results, which is what F1 is all about. Red Bull, this year's top team, tested Piastri in its simulator before he was picked up by Alpine, but failed to spot his talent, something team principal Christian Horner has publicly said he regrets.

Next season, Piastri goes up against Norris, one of the fastest of the new generation of drivers, who will be entering his fifth season of F1 despite being only 23. Although Piastri has done just over 5,000 kilometres of testing in an F1 car, he will be somewhat race rusty after a season on the subs' bench. But history shows that this is surmountable: it was a forced career move taken by several world champions, including Hakkinen and Alonso.

"I feel reasonably well prepared," says Piastri. "I've had this year to get myself into the F1 mindset. In the first half of the year, I went to all the races, I sat in all the meetings. I adopted the lifestyle of an F1 driver, just without driving."

Having proved himself in junior categories, he feels that he is "ready now for F1".

"Obviously, we've got a bit of work to do to get McLaren back towards the front, where we want to be," he adds. "But I'm excited to be part of that challenge."

Global market Next year's Grand Prix on a street circuit that takes in the Strip is designed to build on the post-pandemic surge in American audiences, writes *Samuel Agini*

Big bet on Vegas race signals aim to accelerate sport's expansion in US

Rolling into town: the casinos and hotels of the Strip formed the backdrop for the launch for the Las Vegas GP
Denise Truscello/Formula 1/Formula 1 via Getty Images; Wade Vandervort/AFP via Getty Images

It was not long ago that Formula One was still failing to resonate in America — undermining the series' global aspirations. As if it were not galling enough that the US hosted only one Grand Prix a year, spectator attendance at the single Austin event was also unspectacular.

But, somehow, all that has changed. Sponsors in the US are lining up to partner with F1 and racing teams. Miami held its first Grand Prix this year, and the attendance at Austin has exceeded 400,000 for two years running.

So F1's next big bet is a race on the Las Vegas Strip, next November. Red Bull, Mercedes, Ferrari and the rest of the grid will burn rubber in a Saturday night showdown that is being billed as a collision of the "greatest racing spectacle on the planet" and "the sports and entertainment capital of the world".

With smoke billowing from his tyres as he performed doughnuts in his Mercedes, seven-time world champion Lewis Hamilton was the star attraction when F1 started the countdown to the race with a launch party at Caesars Palace this month.

"The launch in Vegas was, wow, speechless," F1 chief executive Stefano Domenicali tells the Financial Times. "I think we have delivered on what the American market wants: great entertainment [and] experience."

Las Vegas is just the latest expansion of the sport's gruelling schedule. "We want to have 24 different Super Bowl finals," the F1 chief adds. Along with races in Brazil, Canada and Mexico, the Austin, Miami and Vegas events give F1 critical mass in the Americas, in addition to growth in the Middle East through Saudi Arabia and Qatar.

"We were a very European-centric world championship," Domenicali points out. "In the future, that centricity will disappear because we're going to have more and more races in all the different continents of the world," he explains, highlighting ambitions in Africa and Asia.

When John Malone's Liberty Media acquired F1 in an $8bn deal nearly six years ago, the question was how the US billionaire's investment group would expand the business. The departure of Bernie Ecclestone, who ran F1 for so many decades, left many wondering how it would fare.

The big hope was that US ownership could crack America. But success didn't come overnight. Negotiations to race at circuits other than Austin dragged on so long they posed a dilemma. The question, according to Domenicali, was whether F1 needed "to keep pushing and believing in this market or not".

On the face of it, the pandemic made matters worse. Teams faced financial ruin as the 2020 season was placed on hold and then only 17 races were staged.

But drivers such as McLaren's Lando Norris had the downtime to play computer games online, stream their exploits on Twitch, and chat with fans. Netflix's *Drive to Survive* F1 documentary series was a smash with millions stuck at home. Liberty Media's investments in digital media and its embrace of streaming paid off — and America was watching.

"The arrogance that we had before was coming to the US for three days [a year], expecting that everyone was talking about F1 without investing, without commenting, without communicating, without connecting with the market and the fans," admits Domenicali, who became chief executive in January 2021.

An influx of fans, extra races and more sponsors are proving good for business. F1's revenues totalled $1.8bn in the first nine months of 2022, versus just shy of the $1.5bn in the corresponding period of 2019, the final year before the pandemic disrupted the ordinary course of business. From paying next to nothing to screen F1, Disney's ESPN renewed its contract for the US broadcast rights, with each race this season attracting a record average of 1.2mn viewers. The inaugural Grand Prix in Miami was watched by an average of 2.6mn fans.

> 'It was clear that the American market is still the one where we believe there is a huge potential'

The Vegas race could take business up a notch. Caesars Entertainment, MGM Resorts International, and the hotel and casino Wynn Las Vegas are founding partners of the Las Vegas Grand Prix. Liberty Media is also trying its hand at promoting the race.

"In just over a year, F1 fans from around the globe will see how Las Vegas throws a party," says Steve Zanella, MGM Resorts' commercial chief.

Typically, F1 makes money from broadcast deals, sponsorship and charging promoters for the right to stage races. But, earlier this year, the group invested $240mn in 39 acres of land east of the Strip to accommodate the pit, paddock and some hospitality areas for the race.

Greg Maffei, Liberty chief executive, explained to analysts earlier this year: "We see the opportunity to be a promoter as a way to expand our understanding of the business . . . how to be the best F1 product on the track for other promoters, as well to look at an opportunity to grow our knowledge and our understanding, and potentially promote other races down the road."

For Domenicali, Vegas is just the next step towards putting F1 on a par with the sports that dominate American culture. "It was clear since the beginning that the American market is still the market where we believe there is a huge potential to grow," he says.

"We're just scratching the surface of what we should have."

Starting grid still distant goal for female drivers

Equality Low number of girls at junior levels and lack of funding limit opportunities and talent pool, writes *Josh Noble*

It has been 30 years since Giovanna Amati tried unsuccessfully to qualify for the Brazil Grand Prix — the last time a woman came close to appearing in a Formula One race.

Many in the sport, including driver Lewis Hamilton and F1 chief executive Stefano Domenicali, say they want to see a female driver on the grid. But, with the W Series, the all-female championship, running into financial difficulties, and its three-time winner Jamie Chadwick now exploring options outside F1 for her next challenge, that goal appears as distant as ever.

"Seventy-five women have been to space, and only two women have qualified and started a race since F1 started," says Kate Beavan, a 20-year veteran of the sport and part of '>= More Than Equal', an initiative to find the sport's first female champion. "Female participation in motorsport is woefully low. Female success at the senior level is practically non-existent."

Money remains a huge barrier. Motorsport is an expensive endeavour, even at junior levels, which means anyone seeking to make it to the top needs support — either from a family with deep pockets or corporate sponsors willing to take a chance on a young driver.

"It's hard for everyone," says Chadwick. "To progress all the way through the ranks isn't easy. But, because there are so few women in the sport, and very few have had success, it's still seen as a bit of a risk and, therefore, it isn't easy to secure that backing to progress."

Funding has been a longstanding issue. Susie Wolff, a former development driver for F1 team Williams, says that, while motorsport is undergoing a big cultural shift towards diversity — with more women taking up roles as mechanics and engineers — commercial pressures still limit opportunities for female drivers.

"Many people presume that this diversity story, this investment in women's sport, it's a given," she says. "Well, it's not. When I was at Williams, I had the chance to get into a race seat if I had managed to find funding. There wasn't the money then, and I don't think that's changed massively."

In a sport awash with sponsorship cash, money has also been a problem at events for women in racing. The W Series was forced to curtail its season in October because of financial problems. The final three races were cancelled, with the organisers instead switching their focus to fundraising.

Some in the industry think female drivers will only attract funding once they have proved they are fast enough to challenge the men. To have more chance of this, girls may need to become involved in motorsport from a younger age, and be given the same opportunities for development as their male counterparts.

Pathfinders, clockwise from above left: Jamie Chadwick celebrating victory in the W Series at Silverstone in July; former driver Susie Wolff; and Giovanna Amati
Clive Mason/Getty Images; Vince Mignott/MB Images/Getty Images Trevor Samson/AFP

"In the end, we are a very performance-based environment. You are judged on how quick you are," says Wolff, who recently stepped down as chief executive of the Venturi Formula E team. "To get to F1, you need to be very talented, you need to be very, very quick. If a fast young girl were to come along who was quick, the doors would open based on her talent."

The question, then, facing those who want to see a woman in the driver's seat is how to develop the talent that can compete with the men on pace.

Opinions on this subject vary. Many see a need to build up young female drivers' experience. Others identify physical, cultural and psychological challenges.

"We definitely need to nurture talent from a very young age," says Chadwick. "We need to provide more funded opportunities for young girls progressing through the ranks, because that is still a big barrier for everyone. We also need to create more role models — without tokenism — to inspire the next generation."

The >= More Than Equal project, which is backed by former F1 driver David Coulthard and Czech billionaire Karel Komárek, hopes to find a competitive female driver within eight years. It will begin by carrying out data-driven research into the issues women face in the industry.

Most agree that one of these is the difficulty in starting early enough to create a very large talent pool of female drivers, from which a star can emerge.

"It takes a particular magic to become an F1 driver, and certainly to become a Lewis Hamilton or a Max Verstappen," says Beavan. "It's finding a needle in a haystack."

At F1 itself, plans are being drawn up for a new women's category that could provide a route into Formula Three and, ultimately, F1. This new format would target younger drivers (aged 16 and upwards), probably driving Formula Four cars, and could be launched as soon as next year.

"It's clear that, as a sport, we will have one category, women and men . . . racing together", says Domenicali, F1 chief executive. "Our duty is to make sure there are all the fundamentals [in place] to enable [women] to start from quantity to find quality."

Despite the challenges ahead, Wolff is optimistic. "This isn't a closed-off world that's very male-dominated," she says. "It was, but it's moving in the right direction."

Growing influence of Gulf states fuels debate

Shop window: brands are drawn by the vast media reach of F1 — Clive Mason/Getty Images

Continued from page 1

could have happened anywhere, F1's burgeoning ties to the Middle East have also exposed the sport to geopolitical strife — for instance, when a Houthi missile attack struck an Aramco distribution facility as F1 drivers prepared to race in Jeddah this March.

Seven-time F1 champion Hamilton has repeatedly raised concerns about human rights in the region, too — including at the inaugural Jeddah GP in 2021, when he said he did not "feel comfortable" racing in Saudi Arabia.

"The weight of change really needs to be put on the governments and those that are in power," Hamilton said in Bahrain this year. "That's why we've got to continue to utilise the platforms we have when we arrive in these countries as well, make sure we're holding serious conversations about what is happening there."

However, Simon Chadwick, professor of sport and geopolitical economy at Skema Business School in Paris, says that to see investment by Saudi Arabia and other Gulf states solely as 'sportswashing' is short-sighted and risks undermining any future policy responses to matters such as their increasing presence in the industry. "We could even categorise their engagement with F1 as soft power. They're trying to demonstrate to the world they've got the money, that they're affluent," he says.

Although human rights activists often accuse the Gulf states of sportswashing their human rights abuses, there is arguably less noise around F1 than around football and golf — and the region's wider appetite for motorsport is not a recent trend.

"I have always believed in sport as a catalyst of progress in society and I think sport is a powerful tool for good," says Ben Sulayem. "Motorsport has always been in the top three sports in this region, as cars are a big part of our society and culture here."

The game changer for F1, however, was the first Bahrain GP in 2004, when F1 supremo Bernie Ecclestone still ran the series. That paved the way for the likes of Abu Dhabi to follow in 2009.

The Middle East has "helped raise the bar for what facilities look like in F1," says Zak Brown, chief executive of McLaren Racing, which has long been part owned by the Bahraini sovereign wealth fund, Mumtalakat. The Saudi Public Investment Fund also became a shareholder in the McLaren Group in 2021.

"Bahrain was there first, so they helped start the movement and excitement — the popularity of F1 in the Middle East," says Brown. "It's the first race of the year and the [F1 pre-season] testing takes place there. We've got the World Cup coming to Qatar this year, but F1 has led the way on global sports in the Middle East."

'We could categorise Gulf states' engagement as soft power . . . to demonstrate they've got the money'

The focus for promoters in the Gulf, as elsewhere around the world, is on developing business ties between local and global companies. F1 is proven as a highly effective platform for networking and business development, not to mention a powerful shop window, given its vast media reach.

"More and more companies are now wanting to take a look at how they can invest in F1, both in terms of branding and using it as a business networking platform," says Saudi GP chief Martin Whitaker.

"Whilst it doesn't see a direct revenue flow from business networking, it nevertheless creates the interest in business using F1 as a platform," he explains.

While the influence of the Gulf region on F1 is significant, for now, the growth is likely to be capped, with no further venues added. Targett-Adams and her team are focused on finding a hosting venue in Africa. "For me, four [races] feels like the right number," she says. "We have only got so much space on our calendar. I really feel we must race on each continent. So Africa is part of that. Africa is a huge goal."

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Revenue rolls in as hospitality goes up a gear

Paddock Club Packages offering fine food and track tours do brisk business – but demand poses risk to exclusivity, writes *Jonathan Noble*

Back on track: the Paddock Club has surged in popularity since the pandemic

The 2022 Formula One season may have lacked the drama and emotional edge of last year's showdown between Max Verstappen and Lewis Hamilton, but the sport is still riding a wave of fan interest.

Races are sold out well in advance, which means the biggest headache for organisers is often the strain put on local infrastructure by such huge crowds. And this demand has not been restricted to the fans who pack the grandstands. Up in the corporate hospitality area, in what is known as F1's Paddock Club, activity has been just as busy.

Tickets may cost upwards of $5,000 for a three-day weekend package but, across the 19 races where F1 manages the Paddock Club, the forecast is for a total of 47,100 guests this year. That represents a 64 per cent increase in utilisation compared with the last full season in 2019 — despite hospitality being suspended during the Covid pandemic in 2020 and only restarted midway through the 2021 season, at the Austrian Grand Prix.

"In some ways, it has outpaced [general admission] sales," says Brandon Snow, F1's commercial managing director. "This year, we've been sold out way in advance and, for next year already, the demand we have is demonstrating that we will probably be sold out pretty quick there, too."

The Paddock Club offering has evolved with the reinvigoration of the F1 spectacle under current owner Liberty Media, helped by the success of Netflix's *Drive to Survive* series. Hospitality has moved on from being targeted mostly at a business-to-business clientele seeking lobster and champagne.

Events for Paddock Club guests now include track tours on open-top trucks, photo opportunities on the grid, and pit lane walkabouts. At selected venues, there is even a special Paddock Club garage where guests are wined and dined right next to the pit lane.

What has not changed, though, is the organisers' desire to offer good quality food and entertainment — including appearances from drivers in the Paddock Club area, which is typically above the pits.

To ensure a consistent experience throughout the year, F1 uses the same central supplier, Austrian catering company Do & Co, at almost every venue.

"We still do champagne and we still do lobster, but there are now also those money-can't-buy premium opportunities," says Snow. "Putting the CEO of a big company in a car on a hot lap, or going on a garage tour — from a B2B standpoint, it really helps sell what F1 is all about. There are many sports out there that have high-end hospitality products. But adding on the experiences really separates us."

Success for the Paddock Club has also brought challenges. Whereas increased demand for general admission tickets can be addressed by building extra stands, Snow accepts it is a balancing act to ensure higher Paddock Club sales do not dilute the experience for guests.

"You don't want to lose the exclusiveness of it by packing in more people," he says. "We've had a couple of races where it got pretty tight in there just because of outsized demand."

The uplift in interest, as well as the desire to not make things too crowded, is even pushing teams to consider their own hospitality offerings.

Bradley Lord, the Mercedes F1 team's strategic communications director, says that, while the Paddock Club is flourishing at the moment — with over 60 per cent increase in demand compared to pre-pandemic — "this is also driving us towards broader secondary hospitality experiences, which are opening up new hosting opportunities for our guests, especially at marquee races like Miami and Las Vegas".

These secondary experiences are typically additional hospitality venues at the tracks, separate from the official Paddock Club, and operating as part of an arrangement with F1.

> 'Putting the CEO of a big company in a car on a hot lap really helps sell what F1 is all about'

The sport is also having internal discussions about how to balance the benefits that come from a consistent product offering over the season with opening the door to more local suppliers.

This year's race in Miami highlighted the pros and cons of a more open approach. While offerings such as the Hard Rock Beach Club and the MSC Cruises Yacht Club's simulated marina brought some unique elements to the event, allowing Miami's promoter to run the food and beverage services did not go too well. Problems with getting staff to the circuit early enough led to delays in food preparation, and the quality was not up to the usual standard. Miami race chiefs and F1 say the lessons have been learnt and matters will be addressed for next year.

Looking towards 2023, F1 is well aware that Grand Prix racing will not be immune to the economic downturn, as cash-strapped fans opt to watch races at home and companies cut back on hospitality budgets.

Snow says F1 will react if the level of interest drops substantially. "We're very mindful and we'll be very nimble," he says, adding that the sport will make sure it can "manage the volume" of interest and "address the pricing at that time if we need to".

"There may also be a world soon where there are sort of tiered opportunities. The Monacos of the world will still always have a need for the premium, premium piece, but there may be a need to have a descaled version in other places if the economics require it."

Whatever the economic climate, the Paddock Club remains a core element of F1, making a contribution far beyond the revenue from expensive hospitality packages. "It's a critical component to sponsorship deals, partnership opportunities, licensee opportunities and promoter opportunities," says Snow. "It provides this underpinning and underlining of opportunity — beyond just being its own vertical of the business."

FT SPECIAL REPORT

Diversity Leaders

Friday November 18 2022

www.ft.com/diversity-leaders

Standing up for difference

Andy Paradise

Inside

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- Margot Slattery sets Ireland's standard, *Page 5*
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Sweden's Volvo businesses map out an inclusive future

Times are changing and the car and truck makers aim to move with them, writes *David Crouch*

The Biskopsgården district of Sweden's second city, Gothenburg, represents a national failure to tackle segregation and integrate recent immigrants. The proportion of its population born abroad, or with both parents born abroad, is more than 80 per cent.

The police designate the area as "especially vulnerable" owing to the high levels of poverty and crime. A machine gun attack on a local pub, a sleeping child killed by a hand grenade, and a policeman shot dead by a teenager are among the gang-related local atrocities that have shocked the nation.

But Volvo Trucks, as one of the area's biggest employers, recruits here in force. "We see diversity as a success factor and we need a recruitment base from all parts of society," explained Sandra Finér, manager of the nearby Volvo Trucks' factory, at the launch in September of "Handshake for Biskopsgården". This new initiative set up by employers and housebuilders is aiming to improve the area.

"The industry is in an exciting phase," she added, "where competence and people with different experiences working together are key."

Finér, who wears a badge declaring "I am an LGBT ally", is the only female manager of a Volvo Trucks factory but, in the plant she runs, women occupy 42 per cent of management roles.

The factory's workforce numbers 2,800 people descended from 35 nationalities. On the production line, young and old, male and female, black and white workers assemble diesel, petrol and electric trucks.

People believe in the success of diversity, according to Finér. "Out here on the factory floor, it's a no-brainer . . . Local empowerment is important for us. We are getting a workforce that is close by that can help us with the huge industrial journey ahead of us: electrification."

As a time-honoured brand, cars by Volvo — along with those of its former and smaller national rival, Saab — have made for a formidable Swedish presence in the automotive industry. Ancient certainties of the industry, however, have eroded and Saab ceased car production in 2011. Volvo is now split into car and truck making businesses, each having to adapt to new ways of doing things.

In the past, the capabilities valued by such manufacturers were mechanical: how strong you were, how much you could lift. Today, it is teamwork, safety, lean manufacturing, collaboration, quality control and sustainability, Finér says.

"Rather than your arms and legs, it's your heart and head that we need . . . We are looking not just for skills and education but attitudes. Line managers pick their team members so, if you already have an inclusive culture, they will pick people who will contribute to that culture."

Culture: 'focusing on equality to drive the values we want to see'
Volvo

The plant does not explicitly focus on diversity, Finér says, but on values and inclusion: "Easy to say, not so easy to do," she admits, but: "It is so important to include everyone; I am convinced this creates results."

A few kilometres south lies the sprawling industrial complex that is home to Volvo Cars. It separated from the trucks division in 1999 and, since 2010, has been owned by Chinese multinational Geely.

But its approach mirrors that of Volvo Trucks. "We are moving away from diversity and towards inclusion," says Hanna Fager, Volvo Cars human resources chief.

"We need to focus on an inclusive culture and work environment in order to retain not only women but all employees. Today, we are focusing on equality for all to drive the behaviours and values that we want to see in the company."

Building an inclusive culture where employees feel 'belonging' — that sense of acceptance of differing personalities, with no need to rigidly conform — "is the way to go for all aspects of diversity", Fager believes.

She says that it has "a direct impact on our creativity and innovation in our business".

Sweden's automotive giants wear their commitment to diversity on their sleeves. In its global advertising, Volvo Cars has used the slogan "Great minds don't think alike" — the message being that a workforce built on this principle produces better cars. It also created award-winning television advertising, for the UK's Channel 4, in a 2017 competition calling for entries relating to non-visible disabilities, such as autism and deafness.

Volvo Cars set its sights on having women in 35 per cent of its senior roles but achieving the objective has proved a struggle. By 2018, it had reached almost 29 per cent — from about 19 per cent in 2007 — but, then, in 2020 the rising trend in women leaders came to a halt. Volvo Cars has replaced the target with a commitment to achieve 50:50 equality in senior management positions. This remains a long-term ambition with, as yet, no set date for its fulfilment.

The company's shift comes against a background of Sweden dropping plans, five years ago, by the ruling coalition of Social Democrats and Greens, to force listed companies to appoint women to at least 40 per cent of board seats by 2019. Opponents of the plans formed a parliamentary majority insisting that it should be left to company owners to decide on gender quotas at their companies.

Fager agrees that quotas are not the way forward. "We can see from our own experiences that it is the company culture that will determine that we can retain women."

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Media has sights fixed on 50:50 target

OPINION
Nina Goswami

Two decades ago, as a national newspaper junior reporter, I interviewed a family who agreed to have their picture taken for the article. The father of the family was black and, when the newsdesk realised it, I was directed to find an alternative family.

That is almost unimaginable in today's more culturally aware newsroom. Research from the National Council for the Training of Journalists shows an increase in ethnic minority journalists from 6 per cent in 2008 to 13 per cent by 2021. But embracing diversity remains a challenge.

Marcus Ryder, external consultancies head at the Sir Lenny Henry Centre for Media Diversity, notes changes in the media landscape. In the 1980s and 90s, just four television channels existed, creating a "very strong oligopsony" — a market dominated by a few buyers. The small number of programmes bought, he adds, "did not help black people".

Today's hundreds of streaming and social media platforms increase opportunities to win commissions. Regulator Ofcom says public sector broadcasters' spending on first-run UK originated content rose 25.9 per cent last year to £2.6bn. "But, in terms of who has got the big budgets, realistically, you still have very few purchasers," Ryder admits.

Miranda Wayland, Amazon Studios and Prime Video's Europe diversity head, says the emergence of streaming services means more opportunity "for diverse storytellers" and "historically excluded groups represented onscreen".

But more off-screen talent from under-represented areas of society is needed if audiences are to be "authentically reflected in our content". For example, data from the Creative Diversity Network, show the proportion of disabled people in senior off-screen broadcast roles fell from 6.6 to 4.5 per cent in the past five years — yet disabled people comprise 18 per cent of the UK population.

However, quantity alone will not secure diversity of voice as audiences quickly spot a lack of authenticity. "We're seeing more representation," says Yasmin Asare-Anderson, media development director at market researchers Ipsos. The question is does that feel "accurate and truly representative". Ipsos has examined how content creators can portray people and communities to avoid unconscious stereotyping but, says Asare-Anderson: "We're not seeing the depth that we should be."

Goswami: 'all are unique'

Media organisations are turning to data as a means of understanding whether their content represents their audiences. In 2017, the BBC set up 50:50 The Equality Project, where staff keep count of who appears in editorial content.

Lara Joannides, creative diversity lead for 50:50 and BBC News, says this has helped spotlight diversity and representation. The proportion of editorial teams with at least 50 per cent women's representation in their output rose to 61 per cent this year, against 35 per cent when monitoring began. Gratifying in itself, this has business benefits; 68 per cent of women aged 16 to 34 say they consume more BBC content because of this greater female representation.

Jessica Schibli, BBC diversity and inclusion head for children's and education output, says the 50:50 initiative aids commissioning of programmes such as *Something Special,* which is geared towards children with delayed learning and communication skills. "We need diversity and lived experience off screen to stay relevant to our audience," she adds. This requires diverse talent in such key roles as writers, directors and producers.

About 150 bodies, the Financial Times included, around the world have adopted the 50:50 model. The "approach to diversity is maturing", says Vikki Cook, Ofcom diversity head for UK broadcasting; "it's about equity and inclusion as much as diversity."

For the uninitiated, diversity is what makes us different, equity is about providing fairness of opportunity, and inclusion is where we feel accepted without having to conform. We all have unique traits and shouldn't need to hide them.

Today's data collection methods are being refined to go beyond numbers alone. Having more women, for example, on staff doesn't necessarily mean they'll want to stay. You have to look at the quality of content that they're working with, maternity provision, mentoring for under represented groups, and so on.

And Yasir Khan, chief editor at news service the Thomson Reuters Foundation, says "these efforts can still feel like charity."

Still, the industry has come some way since I was a junior reporter. It is developing the tools and the will to ensure diversity is not just a "nice to have" . . . but becomes ingrained as a "must have".

Nina Goswami was the BBC's first creative diversity lead and until recently head of its 50:50 The Equality Project. She is head of inclusion for the UK at global law firm Clifford Chance

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When wobbliness is a way of ‘normal’ life

OPINION

Francesca Martinez

Poise: ‘It didn’t bother me when I was the only [wobbly] woman on the bill’
Megan Taylor

I’ve never been a fan of labels, of anything that reduces a human being to a word or phrase. As a young child, I remember hearing my doctor solemnly declare that I had “cerebral palsy”; I took an instant dislike to those ugly words. Being wobbly was just one aspect of my daily — “normal” — life, and not something undesirable.

The way that medical folk spoke about me sounded negative and acutely alienating. I’d never felt wrong or faulty, quite the opposite. I’d felt happy and confident and loved by my parents — and my two Spanish grandparents, who showered me with affection and delicious food. It was quite the shock to discover, early on, that the world around me saw my wobbliness as a sign that I was, in some fundamental way, broken.

I was perplexed by such a silly reaction from so-called grown-ups: why did they define me by my movements rather than who I was inside? My young brain sprang into action and I decided that humour was the appropriate response to this unpleasant reality, as I’d seen how it could magically transform nerves and pity into acceptance and respect. Being funny was my way of making the world look past my wobbles and shakes — and see *me* instead. It worked.

By the time I became a working comedian, I had a ton of life experience making people laugh. So, when I wobbled on stage to perform stand-up for the first time in a scruffy upstairs room of a pub in Soho in July 1999, I felt something beautiful pulsate inside me (besides the nerves that resulted in visible shakes and twitches). I felt a deep sense of arriving home.

That summer, I fell in love with comedy and its capacity to connect strangers and float alternative ways of looking at ourselves and the world.

Rather than slowly changing preconceptions through one interaction at a time, I felt I could challenge people on a mass scale — hundreds or thousands at once. It was exhilarating and empowering to harness the wonders of stand-up to humanise scary labels, help people relax around difference, and make them realise that wobbly people are just — drum roll — people (and all without being worthy, boring or earnest). What a high.

Addictions come in many forms and I definitely succumbed to the mesmerising lure of a solitary microphone, an empty stage, and an audience full of anticipation.

It’s true that the stand-up profession was dominated by white able-bodied males but that wasn’t really an issue for me, because I was used to being an outsider. It didn’t bother me when I was the only (wobbly) woman on the bill. Nowadays, there is more diversity in stand-up, including some brilliant wobbly comedians but, back then, I was a bit of novelty.

This didn’t pose a problem as, at that stage in my life, I’d grown comfortable with standing out. After a painful stint at high school — mercifully interrupted by getting a part on [BBC television’s children’s series] Grange Hill — and the following years of self-loathing and anxiety, I had hit a point where I had a stark choice: to accept myself or live in misery.

Thankfully, I made the right choice, and learned to love my wobbly body. It had given me life after all, and I was determined not to waste a single day more comparing myself to the toxic fiction of normality that was routinely sold to us. I was perfectly Francesca and I was grateful to be alive.

Embracing myself reconnected me to the joys of life, and I began to reconsider how I viewed my wobbliness. It was always implied that I’d have to succeed “in spite of it”, but I began to feel strongly that the opposite was true. I realised that it had made me more patient, more empathetic, more determined, and more tenacious — and these were all positive qualities that had been instrumental in my career.

I had learnt to reach a high level of consistency in my performances, precisely because I wouldn’t get any “second chances”. Knowing that I would not be booked again if I “died” on stage felt like an unfair pressure but, on reflection, I can see that it spurred me on to develop a strong work ethic. My family bonds had been deepened by my physical dependence, and my brother was my best friend — something that I cherish to this day.

Seeing the positive ways in which being wobbly has shaped me, and my life, has made me look at our personal challenges differently.

Far from being what hinders us, our “imperfections” or “shortcomings” are actually great opportunities for growth, for deeper understanding, for cultivating inner peace. I don’t think I would have questioned the unhealthy pressures to conform at such an early age had I not been wobbly.

Looking back, any suffering I’ve encountered in my life has not come from being wobbly but from living in a world that breeds self-loathing. I believe that self-acceptance and happiness for *anyone* come from questioning dominant narratives which don’t serve our wellbeing, and adopting healthier values. It’s cheaper than buying stuff — which is consumer culture’s answer to everything — and has the added benefit of saving resources on a finite planet!

Being wobbly has brought challenges and joys into my life, but surely the same can be said for everybody’s set of circumstances. Yes, I’ve faced discrimination and have lost certain jobs due to it, but I’ve gained much of value and been offered other jobs partly because of my difference. I believe challenges are universal and part of life.

Some people are physically wobbly; others are emotionally wobbly. Diversity is a word that applies to all of us. We are all different. Making sure that diversity is represented in all aspects of life shouldn’t be a box-ticking exercise: it is simply an attempt to reflect life as it is.

While we all differ in unique ways, the best things in life — love, friendship, community, progress — emerge when we transcend those differences and connect with each other as people.

> ‘Humour was the appropriate response to this unpleasant reality’

Francesca Martinez is an English comedian, writer and actress. She starred in her own play All of Us *at the National Theatre. Her book* What the **** is Normal?! *is published by Penguin*

Ireland tech sector drives corporate diversity and inclusion

Technology

Imported mindset has paved the way, reports *Jude Webber*

Ciara Smyth, a strategic human capital consultant, returned to Ireland in 2016 after 20 years in the US and UK. And she recalls, at that time, a middle-aged white male client with his own tech company and two women on the board, organising a team-building exercise. “It was a golf outing!” she sighs. “I thought: ‘are we in 1981?’”

Today, a female tech executive among her clients openly blocks off time on the company calendar for the school run. In the past, ambitious Irish mothers had to shun such activities to get ahead.

Now, though, diversity, equality and inclusion are key features of corporate life in a country that has changed, socially, beyond recognition in under a decade. Take, as evidence, the legalisation of same-sex marriage in 2015 and abortion in 2018.

Meanwhile, Leo Varadkar — gay and of Indian heritage — is about to begin his second spell as prime minister.

The technology sector in Ireland — European home of giants Google, Meta and Amazon — has helped to import a diversity mindset that has enriched corporate life just as booming tech industry taxes have swelled state coffers.

“The tech industry has always been an early adopter,” says Daniel Corcoran, global strategy and operations vice-president of online recruitment company, Indeed. “Many in Ireland view tech companies as attractive employers . . . Other industries want to emulate that.”

Disability campaigner Sinéad Burke, who founded Tilting the Lens, an accessibility and inclusion consultancy working with businesses from tech to luxury fashion, says there is progress to learn from.

“Ireland is often a wonderful case study to be able to engage initiatives . . . and then see what are the ways you can measurably scale them.”

The number of women in tech leader roles is one metric. According to the 2022 Digital Leadership Report by recruitment and professional services company Nash Squared, 18 per cent of tech leaders in Ireland are women, up from 12.5 per cent last year and ahead of 14 per cent globally. “Ireland is punching well above its weight in terms of female talent in the tech sector,” says Stafford Baggot, a partner at headhunters Heidrick & Struggles.

Tech teams in Ireland are 27 per cent female, against a global 23 per cent. “There’s been a conscious effort to move the dial,” says Bev White, chief executive of Nash Squared, which finds that, of new tech hires in Ireland, 28 per cent are women, the same as globally.

In 2015, Frontline Ventures, a fund specialising in business-to-business financing for early-stage entrepreneurs, began tracking how many of the tech companies it invested in were founded by women. At that time, only 6 per cent of its portfolio had female founders. This year, it is on track to be above 30 per cent, says William McQuillan, a Frontline Ventures founder and partner.

Tech ventures with non-white founders account for 15 per cent of its portfolio — a rise from 10 per cent in 2018 — well ahead of the national average in a country where only 8 per cent of the population is non-white, according to the most recent official data.

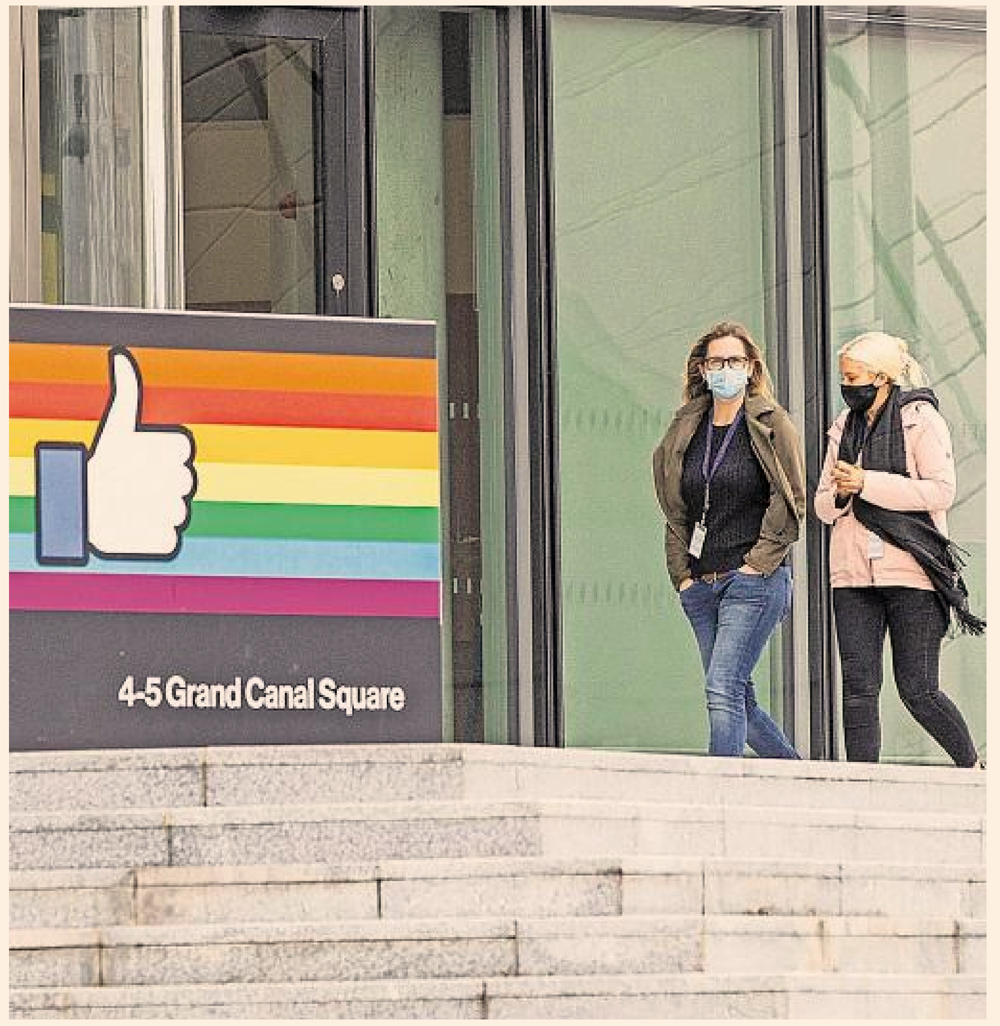
Karen Church, vice-president of research and data science at Irish-founded software company Intercom, had been astonished to find the diverse groups she enjoyed at university evaporated when she finished her PhD. “It was only when I left that I realised, ‘where have they all gone’?”

So, in 2017, Church founded Her+Data, a community for women in, or aspiring to be in data, science and coding. She had come home after years working in California to find such fields in Ireland still very male dominated and wanted a way for women to meet up and mentor each other as she had seen in the US. “It has allowed more women, or people aspiring to data roles, to connect and see role models,” she says. “We had tens at first, now we have close to 1,000 members.”

Some challenges are gaining much needed attention, notes Áine Maher, a mental wellbeing, diversity and belonging consultant working with tech clients. “Lately, there’s been a real surge around neurodiverse inclusion,” she says, referring to the recognition that people interact with the world around them in different ways due to variations in the brain and cognition.

Focusing on inclusion, where people feel they are accepted without having to conform, is the way to keep employees — particularly younger generations — happy and engaged, she adds.

“Diversity drives recruitment. But inclusion is what really drives retention in the war on talent, when you have Gen Z staff jumping around between companies.”



Thumbs up: the number of women in leader roles beats the global figure — Paul Faith/AFP/Getty Images

Business champion sets the Irish standard

In 2015, as Ireland prepared for its same-sex marriage referendum, Margot Slattery (pictured), one of few openly gay Irish top executives, helped to rally scores of company chiefs to get behind the reform effort.

The 55-year-old global head of diversity and inclusion at ISS, which provides catering, cleaning and other services to businesses, is global D&I ambassador for the autonomous enterprise body, the All-Ireland Business Foundation.

It took years to shed her baggage of growing up gay in devoutly Catholic, rural Limerick, in the west of Ireland: “It just wasn’t acceptable to be different,” she says. Confronting her “own homophobia”, she came out well into her thirties.

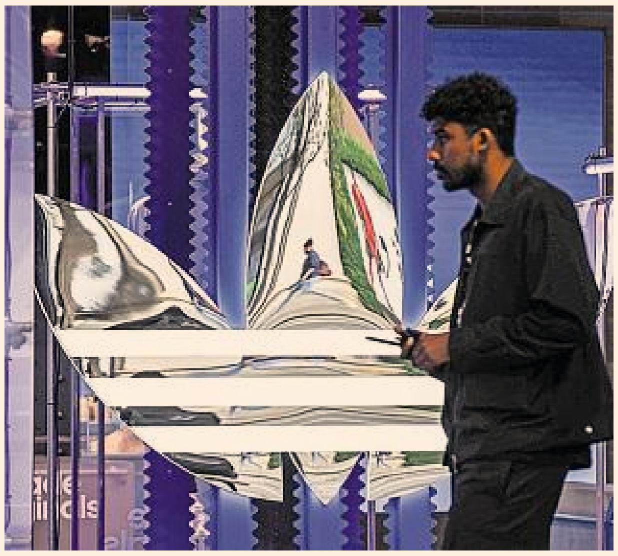
Slattery says a supportive workplace was her “enabler”. She was at French catering services group Sodexo at the time and went on to become its Ireland chief executive.

She had faced discrimination in her first career as a chef: “Females get called cooks.” After hotel management retraining, she swapped macho professional kitchens for male-dominated business.

She wearies of being pigeonholed the gay executive. “There’s still a hell of a lot to talk about” to make workplaces more inclusive and maintain hard-won rights — “we see in parts of the world the freedoms that we have enjoyed slipping away.”

Shy, yet driven, “you’ve got to be vocal,” she adds. “CEOs need to take a stand.” Married in 2017, the idea of a political future attracts her. She is ambitious to see lasting change, not least in attitudes. “People say I’ve got a gay job and I have a day job . . . I’ve just got a job.” **JW**

Investors and workers in diversity data challenge



Criteria: companies taking part had to show evidence of commitment to diversity Hollie Adams/Bloomberg

Rankings

Employee surveys are an imperfect measure of work around inclusion, writes *Matthew Vincent*

Europe's employees may be swapping Zoom calls for meeting rooms — office occupancy rates have risen to 70 per cent of pre-pandemic levels — but who they are encountering there remains largely the same. Recent research has shown little change in the diversity of workforces across the continent.

A study of the European banking sector published by DBRS Morningstar in September concluded that gender diversity in executive roles is still "lagging behind". Entitled 'More Work Still to be Done', the report found women made up only 26 per cent of executive management teams.

Similarly, a report from the UK Financial Reporting Council in the same month found "a persistent lack of representation of people from minority ethnic groups in senior positions" within FTSE 100 and FTSE 250 companies. "The percentage of workers from the Black ethnic group employed in senior level roles is 4.6 per cent," the authors observed. "For comparison, this figure is 10.7 per cent for White British workers."

For employers, this absence of employee diversity should be a concern, not only to counter the strategic risk of "groupthink" or the legal risk of discrimination claims, but also to protect financial performance.

In a paper updated earlier this year, behavioural science consultancy MindGym quoted McKinsey data showing that companies in the top quartile for gender diversity are 21 per cent more likely to deliver above-average profits than those in the bottom quartile, while those in the top quartile for ethnic diversity are 33 per cent more likely to outperform the bottom quartile.

Disclosures of increased diversity lift share prices, too, the paper added. Even on non-financial metrics, inclusive companies appear more successful — being four times more likely to report high wellbeing and six times more likely to be innovative, according to MindGym.

Investors and employees, therefore, have an interest in knowing which European companies are leading the way on diversity and inclusion. However, the paradox remains that while some companies are doing more, and some regulators demanding more, authorities will not let companies ask or report more.

Last year, for example, German sportswear group Adidas sought to gather data on ethnicity, nationality, gender identity and sexual orientation to improve workforce diversity — but participation had to be voluntary. UK regulators at the Financial Conduct Authority also wanted companies to disclose whether they meet board diversity targets — but they can choose to comply or simply explain why they cannot. In the EU, the data collection handbook says: "Legal obligations to collect equality data [are] limited in almost all Member States to duties of equality bodies to monitor (in)equality and to publish reports." It also warns that "certain kinds of administrative registers with sensitive data may be illegal."

That is why the FT and Statista have compiled this fourth ranking of Diversity Leaders — but have again had to base it on surveys of employee perception, rather than reported data. As such, it cannot be definitive, as employees may overstate or understate a company's actual work on inclusion. This year, however, the scope for misconception has been reduced by stricter eligibility criteria: only those companies with a written policy on diversity and inclusion, or a public commitment to diversity, are ranked.

On that basis, Infineon, Start People, Techint Group, FinecoBank Banca Fineco and Giorgio Armani emerge as this year's leaders. Infineon, for example, was one of the first companies in Germany to sign the Diversity Charter in 2007 and has built on its strategy ever since.

Among other companies in the top ten, Allegro has started a "D&I Champions" initiative, and Keysight Technologies is promoting science, technology, engineering and mathematics learning among girls, women and under-represented communities.

But even ranked companies are not without diversity challenges. For example, in the due diligence process, FT journalists noted historic discrimination claims against some of the companies that employees had ranked highly. Where these claims were one-offs, or more than three years old, or not about European operations, they did not affect places in this ranking. However, where the claims were about European operations and not one-offs, Statista adjusted the companies' relevant diversity scores downwards to recognise the issue.

Leading companies are beginning to show a consistent approach, though: 80 per cent of those ranked here were also deemed "Diversity Leaders" in previous years.

Methodology online

THE RANKING

The FT-Statista ranking of Europe's Diversity Leaders is based on independent surveys of more than 100,000 employees across the continent. For the full methodology visit ft.com/diversity-leaders

FT FINANCIAL TIMES statista DIVERSITY LEADERS 2023

Diversity leaders: top 50 by score

Rank	Company	Score	European headquarters*	Main industry sector
1	Infineon	8.45	Germany	Semiconductors, Electronics, Electrical Engineering, Hardware
2	Start People	8.40	Netherlands	Business Services and Supplies
3	Techint Group	8.39	Luxembourg	Manufacture and Processing of Materials, Metals and Paper
4	Finecobank Banca Fineco	8.22	Italy	Banking and Financial Services
5	Giorgio Armani	8.19	Italy	Clothing and Accessories, Sports Equipment
6	Allegro	8.15	Poland	Retail
7	Cd Projekt	8.15	Poland	IT, Internet, Software and Services
8	Fleury Michon	8.14	France	Food, Soft Beverages, Alcohol and Tobacco
9	Hermès	8.13	France	Clothing and Accessories, Sports Equipment
10	Keysight Technologies	8.11	Germany/UK	Semiconductors, Electronics, Electrical Engineering, Hardware
11	Prada Group	8.09	Italy	Clothing and Accessories, Sports Equipment
12	Club Méditerranée	8.09	France	Travel and Leisure
13	Merit Medical	8.09	Ireland	IT, Internet, Software and Services
14	Agilent Technologies	8.09	Germany	Health Care Equipment and Services
15	ADM	8.09	Switzerland	Food, Soft Beverages, Alcohol and Tobacco
16	IKEA	8.08	Netherlands	Retail
17	Disneyland Paris	8.05	France	Travel and Leisure
18	Avanade	8.05	UK/Italy	IT, Internet, Software and Services
19	Fiducia & GAD IT	8.05	Germany	IT, Internet, Software and Services
20	State Street Bank	8.04	Germany	Banking and Financial Services
21	Salesforce	8.04	Switzerland	IT, Internet, Software and Services
22	La Cassa di Ravenna	8.02	Italy	Banking and Financial Services
23	MAIF	8.01	France	Insurance
24	Google**	8.01	Ireland	IT, Internet, Software and Services
25	Hyatt Hotels Corporation	8.00	UK	Travel and Leisure
26	PayPal	8.00	Luxembourg	Banking and Financial Services
27	Techem	7.98	Germany	Semiconductors, Electronics, Electrical Engineering, Hardware
28	AbbVie	7.98	Germany	Drugs and Biotechnology
29	Microsoft	7.98	France	IT, Internet, Software and Services
30	Salling Group	7.97	Denmark	Retail
31	Hugo Boss	7.97	Germany	Clothing and Accessories, Sports Equipment
32	Barilla	7.96	Italy	Food, Soft Beverages, Alcohol and Tobacco
33	alight	7.96	UK	IT, Internet, Software and Services
34	Groupe Atlantic	7.96	France	Semiconductors, Electronics, Electrical Engineering, Hardware
35	Radiometer Medical	7.94	Denmark	Health Care Equipment and Services
36	GRDF	7.94	France	Utilities
37	Bristol Myers Squibb	7.94	France	Drugs and Biotechnology
38	Sartorius	7.94	Germany	Drugs and Biotechnology
39	wagamama	7.93	UK	Restaurants
40	EnBW	7.93	Germany	Utilities
41	S Group (S-ryhmä)	7.93	Finland	Business Services and Supplies
42	Orkla	7.92	Norway	Food, Soft Beverages, Alcohol and Tobacco
43	Cummins	7.91	UK	Engineering, Manufacturing
44	Cmc	7.91	Poland	Manufacture and Processing of Materials, Metals and Paper
45	Rexel	7.90	France	Wholesale
46	Lush	7.90	UK	Retail
47	IBM	7.90	UK	IT, Internet, Software and Services
48	ams OSRAM	7.90	Austria	Semiconductors, Electronics, Electrical Engineering, Hardware
49	Erste Bank	7.89	Austria	Banking and Financial Services
50	American Express Company	7.89	UK	Banking and Financial Services

Diversity Leaders

Aerospace, Defence, Manufacture of Transport Equipment

Rank sector	Company	Score	European headquarters*	Overall rank
1	AGCO	7.86	Switzerland	57
2	Safran Group	7.62	France	209
3	APRR	7.61	France	224
4	Liebherr	7.55	Switzerland	292
5	Airbus	7.54	Netherlands	300
6	Rolls-Royce	7.50	UK	336
7	John Deere	7.46	Germany	394
8	Raytheon Technologies	7.45	Germany	397
9	Thales Group	7.43	France	432
10	MTU Aero Engines	7.38	Germany	495
11	MBDA	7.37	Germany	505
12	BAE Systems	7.37	UK	508
13	Balfour Beatty	7.22	UK	673
14	Caterpillar	7.22	UK	682
15	Alstom	7.21	France	691
16	Bombardier Group	7.20	UK	704
17	Saab Group	7.15	Sweden	744
18	Navantia	7.11	Spain	773
19	Leonardo	7.02	Italy	814
20	Boeing	6.98	UK	835

Automotive (Producers and Suppliers)

Rank sector	Company	Score	European headquarters*	Overall rank
1	Scania	7.83	Sweden	68
2	Rolls-Royce Motor Cars	7.83	UK	70
3	Volvo Car Group	7.81	Sweden	78
4	Ferrari	7.75	Italy	119
5	Tesla	7.60	Netherlands	226
6	Nissan Motor Corporation	7.60	Switzerland	237
7	Ford Motor Company	7.58	Germany	257
8	Bosch	7.57	Germany	269
9	Knorr-Bremse	7.57	Germany	271
10	Rheinmetall	7.54	Germany	302
11	BMW	7.53	Germany	311
12	Toyota Motor Corporation	7.52	Belgium	321
13	Goodyear Dunlop	7.52	UK	323
14	McLaren Automotive	7.46	UK	392
15	ZF Friedrichshafen	7.45	Germany	407
16	Daimler	7.44	Germany	412
17	Volkswagen	7.42	Germany	438
18	MAHLE	7.41	Germany	452
19	Hyundai Motor Company	7.40	Germany	464
20	Brembo	7.40	Italy	470
21	Michelin	7.40	France	473
22	Audi	7.37	Germany	509
23	Volvo Group	7.31	Sweden	574
24	Renault	7.31	France	582
25	Bridgestone	7.29	Belgium	602
26	Honda	7.29	UK	608
27	Plastic Omnium	7.29	France	614
28	Schaeffler-Gruppe	7.24	Germany	654
29	Continental	7.23	Germany	662
30	SEAT	7.21	Spain	689
31	Škoda Auto	7.17	Czech Republic	726
32	Aptiv	7.16	Ireland	743
33	Porsche	7.13	Germany	756
34	Automobili Lamborghini	7.12	Italy	764
35	Jaguar Landrover	7.12	UK	768
36	Magna	7.11	Germany	771
37	Valeo	7.11	France	782
38	Mann + Hummel	7.08	Germany	795
39	Leoni	7.08	Germany	798
40	Dräxlmaier	7.00	Germany	829
41	KTM	6.98	Austria	836
42	GKN	6.93	UK	848

Banking and Financial Services

Rank sector	Company	Score	European headquarters*	Overall rank
1	Finecobank Banca Fineco	8.22	Italy	4
2	State Street Bank International	8.04	Germany	20
3	La Cassa di Ravenna	8.02	Italy	22
4	PayPal	8.00	Luxembourg	26
5	Erste Bank	7.89	Austria	49
6	American Express Company (AmEx)	7.89	UK	50
7	Landesbank Baden-Württemberg	7.84	Germany	63
8	Deutsche Bundesbank	7.83	Germany	67
9	Nationwide Building Society	7.82	UK	73
10	Fidelity Worldwide Investment	7.79	UK	87
11	DNB	7.77	Norway	99
12	Moody's Corporation	7.76	UK	113
13	Swedbank	7.75	Sweden	115
14	Monzo Bank	7.75	UK	117
15	Lloyds Banking Group	7.74	UK	121
16	Citigroup	7.74	UK	123
17	Achmea	7.74	Netherlands	124
18	Aktia Bank	7.71	Finland	147
19	KBC	7.70	Belgium	150
20	Coventry Building Society	7.65	UK	179
21	Leeds Building Society	7.64	UK	191
22	Alior Bank	7.64	Poland	194
23	Latour	7.64	Sweden	195
24	Banca Mediolanum	7.62	Italy	207
25	Abanca	7.61	Spain	223
26	Aareal Bank	7.60	Germany	228
27	ING	7.58	Netherlands	255
28	St. James's Place Wealth Management	7.58	UK	261
29	Intesa Sanpaolo	7.56	Italy	281
30	Deutsche Vermögensberatung	7.53	Germany	313
31	Bank of Ireland	7.53	Ireland	317
32	Zürcher Kantonalbank	7.51	Switzerland	330
33	J.P. Morgan	7.49	UK	344
34	Bank of Scotland	7.47	UK	370
35	Bank Millennium	7.46	Poland	380
36	Nordea Bank	7.45	Finland	398
37	Oberbank	7.44	Austria	409
38	OP Financial Group	7.44	Finland	413
39	Commerzbank	7.43	Germany	426
40	BlackRock	7.43	UK	427
41	Santander	7.43	Spain	434
42	BBVA	7.42	Spain	437
43	Caisse des Dépôts	7.42	France	440
44	NatWest	7.42	UK	445
45	Berliner Sparkasse	7.41	Germany	450
46	Barclays Bank	7.41	UK	456
47	HSBC Bank	7.40	UK	469
48	Deutsche Bank	7.40	Germany	471
49	Halifax	7.40	UK	475
50	LeasePlan	7.39	Netherlands	477
51	Banca Monte Dei Paschi Di Siena	7.39	Italy	484
52	Crédit Agricole	7.39	France	488
53	Rabobank	7.37	Netherlands	506
54	SEB (Skandinaviska Enskilda Banken) Group	7.36	Sweden	527
55	Pko Bank Polski	7.32	Poland	565
56	Standard Chartered	7.31	UK	581
57	Raiffeisen Schweiz	7.30	Switzerland	596
58	Société Générale	7.29	France	610
59	Deka-Gruppe	7.28	Germany	616
60	Worldline	7.27	France	625
61	Morgan Stanley	7.26	UK	632
62	Phoenix Group	7.24	Germany	647
63	Volksbank Mittelhessen	7.24	Germany	656
64	Groupe BPCE	7.23	France	660
65	Abrdn plc	7.22	UK	681
66	DZ Bank Group	7.22	Germany	686
67	Crédit Mutuel	7.21	France	693
68	Unicredit	7.20	Italy	703
69	Raiffeisen Bank	7.20	Austria	708
70	Neuberger Berman	7.19	UK	710
71	Check24	7.17	Germany	730
72	BNP Paribas	7.16	France	732
73	Natixis	7.16	France	733
74	Western Union	7.15	Lithuania	745
75	Metro Bank	7.15	UK	747
76	Banco Sabadell	7.12	Spain	766
77	Nationale-Nederlanden (NN)	7.11	Netherlands	772
78	Caixabank	7.11	Spain	779
79	mastercard	7.11	Belgium	783
80	BNY Mellon	7.06	Belgium	803
81	Handelsbanken	7.02	Sweden	817
82	LCL (Crédit Lyonnais)	7.01	France	825
83	Berenberg Bank	6.97	Germany	840

Business Services and Supplies

Rank sector	Company	Score	European headquarters*	Overall rank
1	Start People	8.40	Netherlands	2
2	S Group (S-ryhmä)	7.93	Finland	41
3	Alexander Mann Solutions	7.78	UK	97
4	PageGroup	7.60	UK	239
5	ADP	7.57	France	273
6	Concentrix	7.55	UK	290
7	Blue Arrow	7.50	UK	337
8	CBRE	7.46	UK	391
9	Webhelp	7.44	France	411
10	Actief	7.43	Belgium	424
11	Martin&Servera	7.40	Sweden	466
12	Teleperformance	7.38	France	494
13	JLL	7.35	UK	530
14	Adecco Group	7.34	Switzerland	554
15	Rentokil Initial	7.34	UK	560
16	Armatis	7.30	France	592
17	All Service	7.29	Germany	609
18	Transcom	7.25	Sweden	640
19	Bundesimmobiliengesellschaft	7.24	Austria	645
20	Nexity	7.24	France	650
21	Sitel	7.22	UK	678
22	TÜV NORD	7.22	Germany	680
23	Sodexo	7.17	France	731
24	3B Dienstleistungen	7.16	Germany	735
25	Lassila & Tikanoja	7.13	Finland	760
26	TÜV Rheinland	7.06	Germany	805
27	Trenkwalder	6.95	Austria	844
28	GSF (Groupe Services France)	6.93	France	846

Clothing and Accessories, Sports Equipment (Manufacturing and Retail)

Rank sector	Company	Score	European headquarters*	Overall rank
1	Giorgio Armani	8.19	Italy	5

Diversity Leaders

Clothing and Accessories, Sports Equipment (Manufacturing and Retail) *continued*

Rank sector	Company	Score	European heaquarters*	Overall rank
2	Hermès	8.13	France	9
3	Prada Group	8.09	Italy	11
4	Hugo Boss	7.97	Germany	31
5	TK Maxx	7.84	UK	62
6	Louis Vuitton	7.82	France	71
7	PUMA	7.73	Germany	130
8	Asics	7.73	Netherlands	133
9	adidas	7.66	Germany	176
10	Decathlon	7.65	France	186
11	Pandora	7.64	Denmark	196
12	Lpp	7.62	Poland	205
13	Nike	7.60	Netherlands	238
14	River Island	7.59	UK	247
15	Zalando	7.59	Germany	248
16	Desigual	7.56	Spain	283
17	Primark	7.53	UK	308
18	Chanel	7.53	UK/France	309
19	Benetton Group	7.52	Italy	324
20	H&M Hennes & Mauritz	7.49	Sweden	355
21	About You	7.46	Germany	383
22	Ralph Lauren	7.46	Switzerland	388
23	Kering	7.40	France	461
24	Lacoste	7.38	France	492
25	Kiabi	7.36	France	514
26	New Look	7.35	UK	528
27	Calzedonia	7.31	Italy	578
28	KappAhl	7.28	Sweden	618
29	OVS	7.24	Italy	651
30	Deichmann	7.22	Germany	684
31	The Swatch Group	7.18	Switzerland	725
32	Foot Locker	7.02	Netherlands	819
33	Mango	7.01	Spain	823
34	Camaïeu	7.00	France	828
35	Levi Strauss & Co	6.98	Belgium	837

Construction

Rank sector	Company	Score	European headquarters*	Overall rank
1	Budimex	7.78	Poland	94
2	Willmott Dixon	7.72	UK	136
3	PEAB	7.68	Sweden	163
4	Royal BAM Group	7.58	Netherlands	259
5	Midroc	7.56	Sweden	282
6	Taylor Wimpey	7.51	UK	328
7	PORR	7.49	Austria	352
8	Yit	7.41	Finland	454
9	Mace	7.35	UK	539
10	John Paul Construction	7.30	Ireland	590
11	Skanska	7.30	Sweden	598
12	CNH Industrial	7.23	UK	659
13	NCC	7.23	Sweden	666
14	Redrow	7.20	UK	699
15	Morgan Sindall	7.13	UK	758
16	KAEFER	7.13	Germany	759
17	Grupo Acciona	7.12	Spain	765
18	Strabag	7.11	Austria	781
19	Destia Fin	7.10	Finland	787
20	Velux	6.99	Denmark	834
21	Doka	6.96	Austria	841

Consulting and Accounting

Rank sector	Company	Score	European headquarters*	Overall rank
1	Clifford Chance	7.87	UK	54
2	Kearney	7.62	Germany	202
3	Willis Towers Watson	7.62	UK	206
4	Pinsent Masons	7.55	UK	287
5	COWI	7.51	Denmark	331
6	EY (Ernest & Young)	7.46	UK	382
7	The Boston Consulting Group (BCG)	7.35	Germany	532
8	McKinsey & Company	7.35	Germany	533
9	Deloitte	7.35	UK	536
10	CGI	7.34	France	553
11	Grant Thornton	7.32	UK	570
12	Linklaters	7.32	UK	572
13	WSP	7.31	UK	580
14	Mazars	7.31	France	584
15	Bureau Veritas	7.26	France	631
16	KPMG	7.24	Netherlands	653
17	Nielsen	7.23	Switzerland	657
18	Eversheds Sutherland	7.23	UK	658
19	Arcadis	7.21	Netherlands	695
20	Fraunhofer	7.20	Germany	701
21	Allen & Overy	7.20	UK	702
22	PwC (PricewaterhouseCoopers)	7.17	UK	728
23	Irwin Mitchell	7.15	UK	746
24	TCS (Tata Consultancy Services)	7.06	Netherlands	806
25	BTC	7.05	Germany	807

Drugs and Biotechnology

Rank sector	Company	Score	European headquarters*	Overall rank
1	AbbVie	7.98	Germany	28
2	Bristol Myers Squibb	7.94	France	37
3	Sartorius	7.94	Germany	38
4	Roche	7.86	Switzerland	55
5	Lilly	7.85	UK	59
6	AstraZeneca	7.84	UK	64
7	Icon Plc	7.80	Ireland	80
8	Merck	7.79	Germany	86
9	Pfizer	7.77	UK	98
10	Johnson & Johnson	7.74	UK	120
11	Well Pharmacy	7.67	UK	167
12	Boehringer Ingelheim	7.66	Germany	174
13	Novartis	7.65	Switzerland	180
14	Chiesi	7.60	Italy	230
15	GSK (GlaxoSmithKline)	7.57	UK	267
16	Takeda	7.49	Switzerland	350
17	DSM	7.46	Netherlands	393
18	Sanofi	7.43	France	422
19	Angelini	7.43	Italy	428
20	Lonza	7.36	Switzerland	523
21	Bayer	7.35	Germany	531
22	BioNTech	7.34	Germany	546
23	Thermo Fisher Scientific	7.34	UK	549
24	Teva Pharmaceuticals	7.32	Israel	567
25	STADA Arzneimittel	7.31	Germany	576
26	Baxter	7.30	Switzerland	595
27	Recipharm	7.23	Sweden	661
28	Alcon	7.23	Switzerland	665
29	Eurofins	7.21	Luxembourg	698
30	Novo Nordisk	7.18	Denmark	720

Engineering, Manufacturing

Rank sector	Company	Score	European headquarters*	Overall rank
1	Cummins	7.91	UK	43
2	Jacobs Engineering	7.68	UK	165
3	KUKA	7.57	Germany	268
4	Alfa Laval	7.53	Sweden	306
5	Expleo	7.50	France	338
6	Parker Hannifin	7.50	Switzerland	339
7	Atlas Copco	7.48	Sweden	369
8	General Electric	7.47	France	372
9	Schindler	7.45	Switzerland	406
10	Sandvik	7.40	Sweden	467
11	KNAPP	7.38	Austria	491
12	AECOM	7.35	UK	534
13	Voith	7.34	Germany	548
14	Honeywell	7.31	Belgium	583
15	Bam Contractors	7.30	Belgium	593
16	Viessmann	7.28	Germany	615
17	Danfoss	7.27	Denmark	627
18	Babcock International	7.25	UK	638
19	ANDRITZ	7.22	Austria	675
20	Etteplan	7.22	Finland	677
21	KONE	7.16	Finland	742

Food, Soft Beverages, Alcohol and Tobacco

Rank sector	Company	Score	European headquarters*	Overall rank
1	Fleury Michon	8.14	France	8
2	ADM	8.09	Switzerland	15
3	Barilla	7.96	Italy	32
4	Orkla	7.92	Norway	42
5	The Kellogg Company	7.78	UK	91
6	Fazer	7.77	Finland	101
7	Amadori	7.67	Italy	170
8	Philip Morris International	7.60	Switzerland	231
9	Savencia Fromage & Dairy	7.59	France	250
10	Swedish Match	7.58	Sweden	256
11	Atria	7.55	Finland	291
12	Diageo	7.53	UK	303
13	Mars	7.52	UK	318
14	Unilever	7.52	UK/Netherlands	320
15	Carlsberg	7.49	Denmark	342
16	RB (Reckitt Benckiser)	7.49	UK	349
17	Nestlé	7.45	Switzerland	401
18	Arla Foods	7.44	Denmark	420
19	Groupe Bigard	7.43	France	421
20	The Coca-Cola Company	7.43	UK	435
21	Pepsico	7.40	Switzerland	474
22	Heinz	7.38	UK	493
23	Coca-Cola Europacific Partners	7.37	UK	500
24	Danone	7.36	France	510
25	ICA Gruppen	7.34	Sweden	542
26	Ferrero	7.31	Italy	573
27	Cloetta	7.27	Sweden	629
28	Cargill International	7.25	Belgium	639
29	Heineken	7.24	Netherlands	648
30	Mondelēz International	7.22	Switzerland	676
31	Greene King	7.22	UK	685
32	Bell	7.19	Switzerland	718
33	Tchibo	7.04	Germany	810
34	Greencore Group	7.02	Ireland	818

Health Care Equipment and Services

Rank sector	Company	Score	European headquarters*	Overall rank
1	Agilent Technologies	8.09	Germany	14
2	Radiometer Medical	7.94	Denmark	35
3	Boston Scientific	7.86	France	58

Diversity Leaders

Health Care Equipment and Services *continued*				
Rank sector	Company	Score	European heaquarters*	Overall rank
4	Medtronic	7.77	Switzerland	107
5	EssilorLuxottica	7.62	France / Italy	208
6	Anticimex	7.61	Sweden	216
7	Abbott	7.60	Ireland	235
8	B. Braun Melsungen	7.60	Germany	236
9	BD (Becton, Dickinson and Co.)	7.51	Switzerland	327
10	CooperVision	7.27	Netherlands	621
11	GPI	7.24	Italy	655
12	B·A·D	7.18	Germany	721
13	Zeiss	7.11	Germany	778
14	Smith & Nephew	7.09	UK	794
15	Olympus	7.01	Germany	821
16	amplifon	7.01	Italy	822

Healthcare (Social)				
Rank sector	Company	Score	European headquarters*	Overall rank
1	Radboudumc	7.87	Netherlands	52
2	Practice Plus Group	7.85	UK	61
3	Universitätsklinikum Münster	7.82	Germany	75
4	Grupo Social Once	7.79	Spain	88
5	Home Instead	7.57	UK	270
6	University Hospitals Of Leicester	7.48	UK	366
7	Vivantes	7.47	Germany	377
8	Adeslas	7.46	Spain	385
9	Bupa	7.45	Spain	396
10	HCA International	7.40	UK	460
11	Voyage Care	7.36	UK	513
12	Insel Gruppe	7.35	Switzerland	535
13	Universitätsklinikum Essen	7.30	Germany	587
14	Uniklinik Köln	7.28	Germany	619
15	Humana Group	7.21	Sweden	687
16	BMI Healthcare	7.21	UK	688
17	De Zorggroep	7.20	Netherlands	707
18	Ramsay Health Care	7.16	France	737
19	Augustinum	7.11	Germany	780

Insurance				
Rank sector	Company	Score	European headquarters*	Overall rank
1	MAIF	8.01	France	23
2	Helvetia	7.80	Switzerland	84
3	Unipol Gruppo Finanziario	7.79	Italy	85
4	Swiss Re	7.77	Switzerland	106
5	Admiral Group	7.76	UK	112
6	Aviva	7.73	UK	129
7	Covéa Group	7.71	France	141
8	Vienna Insurance Group (VIG)	7.67	Austria	169
9	Allianz	7.65	Germany	185
10	Direct Line Group	7.62	UK	204
11	Saga	7.59	Germany	243
12	Zurich	7.59	Switzerland	245
13	CSS Versicherung	7.58	Switzerland	254
14	Barmenia Versicherungen	7.58	Germany	258
15	Schweizerische Mobiliar	7.57	Switzerland	263
16	VKB Versicherungskammer Bayern	7.54	Germany	297
17	RSA Insurance	7.53	UK	304
18	Helsana	7.50	Switzerland	340
19	Generali	7.49	Italy	354
20	Grupa PZU	7.48	Poland	361
21	LV= (Liverpool Victoria)	7.47	UK	374
22	Ageas	7.47	Belgium	376
23	AXA	7.46	France	379
24	NFU Mutual	7.46	UK	389
25	Techniker Krankenkasse	7.44	Germany	418
26	LVM Versicherung	7.42	Germany	436
27	Aon	7.42	UK	446
28	Gothaer	7.37	Germany	499
29	DKV Deutsche Krankenversicherung	7.36	Germany	511
30	Harmonie Mutuelle	7.36	France	515
31	Prudential PLC	7.36	UK	522
32	SOS International	7.35	Denmark	529
33	LähiTapiola	7.34	Finland	557
34	Hiscox	7.33	Luxembourg	561
35	Swiss Life	7.27	Switzerland	628
36	AG2R La Mondiale	7.26	France	634
37	Munich RE	7.23	Germany	663
38	Suva	7.22	Switzerland	679
39	UNIQA	7.21	Austria	696
40	Baloise Group	7.21	Switzerland	697
41	Alleanza Assicurazioni	7.17	Italy	727
42	Malakoff Médéric Humanis	7.15	France	748
43	Continentale Krankenversicherung	7.13	Germany	754
44	Debeka	7.11	Germany	775
45	MGEN	7.10	France	788
46	Pro BTP	7.06	France	804
47	Knappschaft-Bahn-See (KBS)	7.03	Germany	813
48	Lloyd's of London	7.01	UK	824
49	AEGON	7.00	Netherlands	832
50	Mapfre	6.95	Spain	843

IT, Internet, Software and Services				
Rank sector	Company	Score	European headquarters*	Overall rank
1	Cd Projekt	8.15	Poland	7
2	Merit Medical	8.09	Ireland	13
3	Avanade	8.05	UK/Italy	18
4	Fiducia & GAD IT	8.05	Germany	19
5	Salesforce	8.04	Switzerland	21
6	Google**	8.01	Ireland	24
7	Microsoft	7.98	France	29
8	alight	7.96	UK	33
9	IBM	7.90	UK	47
10	Indeed	7.89	Ireland	51
11	Cisco	7.84	Netherlands	65
12	Solita	7.84	Finland	66
13	SAP	7.81	Germany	77
14	Facebook	7.78	Ireland	92
15	Hewlett Packard Enterprise	7.78	Switzerland	96
16	Yahoo!	7.77	Switzerland	102
17	NTT Data	7.77	UK	104
18	Akamai Technologies	7.77	Poland	105
19	Sage	7.76	UK	114
20	DATEV	7.75	Germany	116
21	Logitech International	7.75	Switzerland	118
22	LinkedIn	7.73	Ireland	125
23	Adobe	7.73	UK	127
24	Dell Technologies	7.72	Ireland	140
25	Fujitsu	7.71	UK	148
26	Accenture	7.70	Ireland	151
27	Cognizant	7.69	UK	157
28	Comarch	7.69	Poland	158
29	AXIS Communications	7.67	Sweden	168
30	Citrix Systems	7.62	Switzerland	203
31	Civica	7.61	UK	214
32	TietoEVRY	7.61	Finland	219
33	Red Hat	7.61	UK	220
34	Twitter	7.60	Ireland	234
35	Adform	7.59	Denmark	242
36	Microchip	7.59	UK/France	246
37	Micro Focus	7.56	UK	275
38	Computacenter	7.53	UK	305
39	Telenet	7.51	Belgium	333
40	Amadeus	7.49	Spain	348
41	eBay	7.48	Germany	356
42	Equiniti	7.48	UK	360
43	Capgemini	7.46	France	387
44	Tim Telecom	7.39	Italy	483
45	Broadcom	7.39	UK	487
46	AVEVA Group	7.37	UK	502
47	Oracle	7.37	UK	507
48	Visma	7.34	Norway	551
49	Wind Tre	7.33	Italy	562
50	Fastweb	7.32	Italy	566
51	McAfee	7.31	Germany	586
52	Elisa	7.30	Finland	589
53	adesso	7.29	Germany	600
54	Infosys	7.29	UK	604
55	United Internet	7.28	Germany	620
56	Software AG	7.27	Germany	623
57	Finanz Informatik	7.25	Germany	642
58	Aubay	7.22	France	672
59	Riot Games	7.19	Ireland	711
60	SAS	7.19	Germany	716
61	ATOS Group	7.16	France	738
62	DXC Technology	7.11	Belgium/France/Germany	774
63	Spotify	7.10	Sweden	786
64	Cybercom	7.09	Sweden	791
65	Tech Data	7.09	Germany	792
66	msg	7.04	Germany	811
67	Engineering Ingegneria Informatica	7.01	Italy	820
68	Agfa-Gevaert	6.96	Belgium	842

Manufacture and Processing of Materials, Metals and Paper				
Rank sector	Company	Score	European headquarters*	Overall rank
1	Techint Group	8.39	Luxembourg	3
2	Cmc	7.91	Poland	44
3	Heidelberg Cement Group	7.65	Germany	184
4	Lenzing	7.56	Austria	277
5	Mondi	7.55	Austria	284
6	Lujabetoni	7.53	Finland	307
7	Avery Dennison	7.53	Netherlands	314
8	Trumpf	7.47	Germany	371
9	Tetra Pak International	7.45	Sweden/Switzerland	405
10	Stora Enso	7.34	Finland	555
11	Schott	7.30	Germany	594
12	Prysmian Group	7.29	Italy	613
13	SIG Biz	7.27	Switzerland	622
14	Trelleborg	7.26	Sweden	637
15	SKF Group	7.24	Sweden	652
16	DS Smith	7.22	UK	674
17	Alcoa	7.19	Spain	713
18	Voestalpine	7.16	Austria	736
19	tesa	7.16	Germany	740
20	Billerudkorsnäs	7.12	Sweden	763
21	KSB	7.12	Germany	770
22	ArcelorMittal	7.11	Luxembourg	776
23	SSAB	7.11	Sweden	777
24	Saint-Gobain	7.07	France	802

Diversity Leaders

Manufacture and Processing of Materials, Metals and Paper *continued*

Rank sector	Company	Score	European heaquarters*	Overall rank
25	Smurfit Kappa	7.03	Ireland	812
26	Dillinger	7.02	Germany	815

Media and Advertising

Rank sector	Company	Score	European headquarters*	Overall rank
1	Wolters Kluwer	7.77	Netherlands	100
2	Sky	7.73	UK	126
3	Bauer Media Group	7.67	Germany	166
4	Polsat Box	7.65	Poland	182
5	RELX Group	7.64	UK	193
6	Newsquest	7.45	UK	399
7	Bertelsmann	7.44	Germany	416
8	Mediaset	7.43	Italy	423
9	Schibsted	7.42	Norway	443
10	Guardian Media Group	7.40	UK	465
11	TF1 Group	7.34	France	558
12	Mondadori	7.34	Italy	559
13	Publicis	7.29	France	606
14	Kantar Media	7.24	Germany	646
15	France Télévisions	7.24	France	649
16	The Walt Disney Company	7.22	UK	671
17	BBC (British Broadcasting Corporation)	7.19	UK	717
18	Ipsos	7.14	France	750
19	Netflix	7.08	Netherlands	800
20	ITV	7.00	UK	833

Oil and Gas Operations, Mining, and Chemicals

Rank sector	Company	Score	European headquarters*	Overall rank
1	Chevron	7.83	UK	69
2	Dow	7.78	Switzerland	93
3	Aalberts Surface Treatment	7.71	Germany	145
4	Perstorp	7.70	Sweden	149
5	Epiroc	7.70	Sweden	154
6	RAG	7.68	Germany	164
7	PPG	7.63	Switzerland	198
8	BP	7.60	UK	225
9	DuPont	7.60	Netherlands	229
10	Air Products	7.57	UK	262
11	PKN Orlen	7.55	Poland	288
12	Sika	7.55	Switzerland	294
13	Symrise	7.54	Germany	301
14	Solvay	7.53	Belgium	312
15	Cepsa	7.51	Spain	325
16	SCA	7.51	Sweden	332
17	Kghm Miedz	7.49	Poland	345
18	Air Liquide	7.46	France	381
19	BASF	7.45	Germany	400
20	Shell	7.44	Netherlands	415
21	OMV	7.43	Austria	425
22	Evonik Industries	7.43	Germany	433
23	Grupa Azoty	7.39	Poland	480
24	ExxonMobil	7.39	Belgium	482
25	Repsol	7.38	Spain	497
26	Total	7.34	France	544
27	Arkema	7.27	France	624
28	Eni	7.23	Italy	664
29	Akzo Nobel	7.13	Netherlands	755
30	Metso	7.13	Finland	757

Packaged Goods

Rank sector	Company	Score	European headquarters*	Overall rank
1	Essity	7.71	Sweden	146
2	Givaudan	7.68	Switzerland	160
3	L'Oréal	7.64	France	190
4	Beiersdorf	7.64	Germany	192
5	Henkel	7.63	Germany	200
6	Colgate-Palmolive	7.59	Switzerland	251
7	Procter & Gamble	7.56	Switzerland	279
8	Avon Cosmetics	7.34	UK	550
9	Groupe Rocher (Yves Rocher, Petit Bateau)	7.29	France	612
10	Estée Lauder	7.12	France	761
11	Xerox	6.94	Germany	845

Restaurants

Rank sector	Company	Score	European headquarters*	Overall rank
1	wagamama	7.93	UK	39
2	Pret A Manger	7.72	UK	138
3	Starbucks	7.51	UK	334
4	McDonald's	7.45	UK	403
5	Nando's	7.42	UK	441
6	MAX Burgers	7.40	Sweden	476
7	Greggs	7.39	UK	486
8	KFC | Kentucky Fried Chicken	7.39	UK	489
9	PizzaExpress	7.37	UK	501
10	API Restauration	7.36	France	526
11	Mitchells & Butlers	7.30	UK	591
12	Pizza Hut	7.20	Spain	706
13	Eurest	7.09	Germany	790
14	Domino's Pizza	7.00	Netherlands	831
15	Food Delivery Brands	6.97	Spain	838

Retail

Rank sector	Company	Score	European headquarters*	Overall rank
1	Allegro	8.15	Poland	6
2	IKEA	8.08	Netherlands	16
3	Salling Group	7.97	Denmark	30
4	Lush	7.90	UK	46
5	Bricoman	7.87	France	53
6	Fnac Darty	7.81	France	79
7	Bestseller	7.77	Denmark	109
8	Norauto	7.76	France	110
9	Mercadona	7.74	Spain	122
10	Biocoop	7.73	France	131
11	Amazon	7.73	UK	132
12	Boulanger	7.72	France	135
13	Cdiscount	7.72	France	139
14	Next	7.68	UK	161
15	Rossmann	7.66	Germany	172
16	John Lewis Partnership	7.65	UK	178
17	Wickes	7.65	UK	188
18	Sephora	7.64	France	197
19	Rusta	7.63	Sweden	199
20	Apotek	7.61	Sweden	213
21	Arnold Clark Automobiles	7.61	UK	215
22	Pets at Home Group	7.61	UK	218
23	Dunelm	7.60	UK	240
24	Damartex Group	7.59	France	249
25	GrandVision	7.59	Netherlands	252
26	Tesco	7.58	UK	253
27	Zabka Polska	7.57	Poland	264
28	The Co-op Group	7.57	UK	272
29	Picard Surgelés	7.57	France	274
30	Hofer	7.56	Austria	278
31	Kingfisher	7.56	UK	280
32	Action	7.55	Netherlands	285
33	Sainsbury's	7.54	UK	298
34	Inditex	7.54	Spain	299
35	dm-drogerie markt	7.52	Germany	319
36	Ocado Group	7.52	UK	322
37	Cool Blue	7.49	Netherlands	341
38	Marks & Spencer	7.49	UK	353
39	Axfood	7.48	Sweden	358
40	Otto Group	7.48	Germany	359
41	Asda	7.45	UK	395
42	Douglas	7.44	Germany	410
43	Auto Trader	7.42	UK	439
44	Ahold Delhaize	7.41	Netherlands	449
45	Farmfoods	7.41	UK	451
46	The Works	7.41	UK	453
47	Tokmanni	7.41	Finland	458
48	HEMA	7.40	Netherlands	462
49	Colruyt Group	7.39	Belgium	481
50	Ahlens	7.36	Sweden	517
51	Belron	7.36	UK	518
52	A.S. Watson Group	7.34	Netherlands	543
53	The Body Shop	7.32	UK	568
54	Unieuro	7.32	Italy	569
55	Spar	7.31	Netherlands	575
56	Auchan	7.29	France	601
57	Costco	7.27	UK	626
58	Groupe Carrefour	7.26	France	633
59	Superdrug	7.26	UK	636
60	Eroski	7.25	Spain	641
61	Junge Die Bäckerei	7.25	Germany	644
62	Argos	7.23	UK	669
63	Iceland Foods	7.21	UK	694
64	Kaufland	7.20	Germany	709
65	Migros	7.19	Switzerland	714
66	Esselunga	7.18	Italy	719
67	Printemps	7.18	France	722
68	El Corte Ingles	7.16	Spain	734
69	Monoprix	7.16	France	741
70	Aldi Nord	7.10	Germany	785
71	Hok-Elanto	7.09	Finland	793
72	Dixons Carphone	7.08	UK	797
73	Morrison Supermarkets	7.07	UK	801
74	Galeries Lafayette	7.05	France	808
75	Specsavers	6.92	UK	850

Semiconductors, Electronics, Electrical Engineering, Hardware

Rank sector	Company	Score	European headquarters*	Overall rank
1	Infineon	8.45	Germany	1
2	Keysight Technologies	8.11	Germany/UK	10
3	Techem	7.98	Germany	27
4	Groupe Atlantic	7.96	France	34
5	ams OSRAM	7.90	Austria	48
6	Arrow Electronics	7.85	Germany	60
7	Fronius International	7.80	Austria	83
8	Apple	7.79	Ireland	90
9	Miele	7.76	Germany	111
10	3M	7.72	UK	137
11	Eaton	7.70	Ireland	152
12	HP (Hewlett-Packard)	7.69	Switzerland	156
13	Brother	7.68	UK	162
14	Husqvarna	7.66	Sweden	177

Diversity Leaders

Semiconductors, Electronics, Electrical Engineering, Hardware *continued*

Rank sector	Company	Score	European heaquarters*	Overall rank
15	Ericsson	7.64	Sweden	189
16	Schneider Electric	7.61	France	217
17	Intel	7.56	Germany	276
18	Texas Instruments	7.55	Germany	289
19	Sony	7.55	UK	293
20	Philips	7.53	Netherlands	310
21	Hitachi	7.53	UK	316
22	AT&S	7.49	Austria	347
23	Nkt	7.48	Denmark	367
24	Adva Optical Networking	7.48	Germany	368
25	Lexmark	7.47	UK	373
26	Samsung	7.45	Germany	402
27	ABB	7.42	Switzerland	442
28	Jabil	7.40	Spain	459
29	STMicroelectronics	7.37	Switzerland	503
30	Electrolux	7.36	Sweden	516
31	Siemens	7.36	Germany	525
32	Legrand	7.34	France	552
33	Asus	7.32	Netherlands	571
34	Mitsubishi Electric	7.31	Germany	577
35	Motorola Solutions	7.31	Poland	585
36	Canon	7.29	UK	607
37	Valmet	7.22	Finland	670
38	Konica Minolta	7.17	Italy	729
39	Panasonic	7.14	Germany	751
40	Stihl	7.12	Germany	767
41	Toshiba	6.93	Germany	849

Telecommunications Services, Cable Supplier

Rank sector	Company	Score	European headquarters*	Overall rank
1	EE	7.73	UK	128
2	Proximus Group	7.70	Belgium	153
3	Orange	7.69	France	155
4	Deutsche Telekom	7.65	Germany	187
5	AT&T	7.61	UK	212
6	Vodafone	7.58	UK	260
7	Hutchison 3G	7.55	UK	286
8	Telia Company	7.49	Sweden	346
9	BT Group	7.48	UK	357
10	Free	7.48	France	362
11	Telefónica O2	7.48	Spain	365
12	Sunrise Communications	7.44	Switzerland	414
13	TalkTalk	7.44	UK	419
14	Telenor	7.43	Norway	429
15	Bouygues	7.36	France	512
16	Colt Technology Services	7.30	UK	597
17	Virgin Group	7.30	UK	599
18	Swisscom	7.29	Switzerland	605
19	Koninklijke KPN	7.29	Netherlands	611
20	CTDI	7.20	Germany	700
21	Grupo MASMOVIL	7.20	Spain	705
22	Nokia	7.12	Finland	762
23	Huawei	7.08	Belgium	799

Transportation and Logistics

Rank sector	Company	Score	European headquarters*	Overall rank
1	GVB	7.82	Netherlands	72
2	Easyjet	7.77	UK	103
3	Air France-KLM Group	7.72	France	134
4	SJ	7.71	Sweden	143
5	RATP	7.66	France	173
6	Hapag-Lloyd	7.66	Germany	175
7	SWISS	7.61	Switzerland	210
8	Renfe	7.57	Spain	266
9	Network Rail	7.54	UK	295
10	West Midlands Trains	7.50	UK	335
11	Lufthansa	7.49	Germany	351
12	South Western Railway	7.48	UK	364
13	Air Europa	7.46	Spain	378
14	Brittany Ferries	7.46	UK	384
15	Iberia	7.46	Spain	390
16	Maersk	7.44	Denmark	417
17	NTV Italo	7.43	Italy	430
18	Keolis	7.43	France	431
19	Österreichischen Bundesbahnen (ÖBB)	7.42	Austria	447
20	FM Logistic	7.41	France	448
21	STEF	7.41	France	457
22	Kapsch Group	7.40	Austria	468
23	Die Schweizerische Post	7.39	Switzerland	478
24	Heathrow Airport Holdings	7.39	UK	485
25	Schweizerische Bundesbahnen (SBB)	7.38	Switzerland	496
26	SE Trains	7.38	UK	498
27	SNCF	7.36	France	519
28	Swedavia Airports	7.36	Sweden	524
29	GXO Logistics	7.35	France	541
30	MAG (Manchester Airport Group)	7.33	UK	564
31	Fraport	7.31	Germany	579
32	La Poste	7.28	France	617
33	FirstGroup	7.26	UK	630
34	Deutsche Bahn	7.21	Germany	690
35	MTR Corporation	7.21	UK	692
36	SAS Scandinavian Airlines System	7.19	Sweden	712
37	National Express Group	7.18	UK	723
38	Nobina	7.16	Sweden	739
39	MRW	7.15	Spain	749
40	BLG Logistics	7.14	Germany	752
41	Correos	7.12	Spain	769
42	LNER (London North Eastern Railway)	7.10	UK	784
43	Trenitalia (Gruppo FS)	7.10	Italy	789
44	Deutsche Post	7.08	Germany	796
45	UPS (United Parcel Service)	7.04	Belgium	809
46	Inpost	7.02	Poland	816
47	John Menzies	7.01	UK	826
48	FedEx	7.00	France	827
49	RFI (Gruppo FS)	7.00	Italy	830
50	Eddie Stobart	6.97	UK	839
51	Groupe ADP (Aéroports de Paris)	6.93	France	847

Travel and Leisure

Rank sector	Company	Score	European headquarters*	Overall rank
1	Club Méditerranée	8.09	France	12
2	Disneyland Paris	8.05	France	17
3	Hyatt Hotels Corporation	8.00	UK	25
4	Whitbread	7.82	UK	74
5	Booking.com	7.82	Netherlands	76
6	Hilton Hotels & Resorts	7.80	UK	81
7	InterContinental Hotels Group	7.80	UK	82
8	Nordic Choice Hotels	7.78	Norway	95
9	Expedia Group	7.71	UK	142
10	Travelodge	7.71	UK	144
11	Melia Hotels International	7.67	Spain	171
12	Marriott International	7.63	Switzerland	201
13	Dalata Hotel Group	7.61	Ireland	221
14	William Hill	7.60	UK	227
15	Carnival	7.60	UK	233
16	Cineworld Group	7.60	UK	241
17	Enterprise Rent-A-Car	7.57	UK	265
18	Scandic Hotels	7.54	Sweden	296
19	Merlin Entertainments	7.53	UK	315
20	Liseberg	7.48	Sweden	363
21	Bourne Leisure	7.45	UK	408
22	Lego	7.41	Denmark	455
23	Uber	7.40	Netherlands	463
24	AccorHotels	7.37	France	504
25	TUI	7.36	Germany	521
26	Verkehrsbüro Group	7.34	Austria	556
27	Hays Travel	7.33	UK	563
28	Macdonald Hotels	7.26	UK	635
29	Radisson	7.23	Belgium	667
30	Just Eat Takeaway.com	7.13	UK	753

Utilities

Rank sector	Company	Score	European headquarters*	Overall rank
1	GRDF	7.94	France	36
2	EnBW	7.93	Germany	40
3	LINZ AG	7.86	Austria	56
4	United Utilities	7.79	UK	89
5	RheinEnergie	7.77	Germany	108
6	Severn Trent	7.69	UK	159
7	Enedis	7.65	France	181
8	OVO Energy	7.65	UK	183
9	SWM Stadtwerke München	7.61	Germany	222
10	RWE	7.59	Germany	244
11	EDF	7.51	France	326
12	EWE	7.49	Germany	343
13	National Grid	7.47	UK	375
14	Acea	7.46	Italy	386
15	Fortum	7.45	Finland	404
16	Enel Group	7.42	Italy	444
17	Framatome	7.40	France	472
18	E.on	7.39	Germany	479
19	Vattenfall	7.36	Sweden	520
20	Thames Water	7.35	UK	537
21	Iberdrola	7.35	Spain	538
22	Scottish Power	7.35	UK	540
23	SSE (Scottish and Southern Energy)	7.34	UK	545
24	Centrica	7.34	UK	547
25	TAURON	7.30	Poland	588
26	BayWa	7.22	Germany	683
27	A2A	7.19	Italy	715
28	ENGIE	7.18	France	724

Wholesale

Rank sector	Company	Score	European headquarters*	Overall rank
1	Rexel	7.90	France	45
2	Ingram Micro	7.61	Belgium	211
3	Logista	7.60	Spain	232
4	Brenntag	7.51	Germany	329
5	Brakes	7.38	UK	490
6	Hilti	7.29	Liechtenstein	603
7	Würth Group	7.25	Germany	643
8	Neuca	7.23	Poland	668

Notes *European headquarters: managerial centre of the company, either for its global operations or for Europe. In most cases, headquarters corresponds with the registered main legal address of the company, yet this is not necessarily the case. Ikea, for example, has its legal head office in the Netherlands but many of the administrative functions remain in Sweden where the company was founded. **While Google's European headquarters based in Dublin, Ireland, are in charge of sales and marketing, the company also runs one of its global engineering hubs in Europe which is based in Zurich, Switzerland.

Diversity Leaders

The best leaders know to be vulnerable

Osunsade: leaders needn't fear tapping into their 'hustle energy'
Ron Timehin

OPINION

Abadesi Osunsade

No one is infallible. But leaders have historically been regarded as a lot less fallible than most. From the position they've ascended to, it's assumed they have a perfect 360-degree view with all angles covered — and no need to consider the perspective of any other stakeholder. This idea is outdated, though, and not one you should model your leadership on.

As a black and Asian woman in a tech industry dominated by white men in authority, I've learnt how tough it can be to build trust and connect with people with different lived experiences. Yet trust and empathy are at the core of connection, and productive teams are ones that can healthily engage in differences of opinion in pursuit of increased productivity and innovation.

In my first foray into the tech start-up world in 2011, I worked at Groupon in the City of London. It was an internet darling, with acquisition offers from Google. I joined a small team in a new department managing relationships with merchants fulfilling offers to Groupon customers.

Within eight months, I was promoted to manager and our department had swelled to 50. We hired people from all backgrounds and I saw all start-ups as wonderfully diverse in education levels, socio-economic classes, sexual preferences, hair colour — you name it.

Workplace reality is less idyllic. Women, half the population, are 26 per cent of the UK tech workforce. While 20 per cent of UK people identify as black, brown or another ethnic minority like me, we comprise 15 per cent of the tech workforce, says research by the networking platform Tech Nation.

So much talk about diversity and inclusion, so little progress in the data. How do we, as leaders, close the gap between word and action?

To me, the solution is that we must learn from Brené Brown's viral TED talk, *The Power of Vulnerability*, and allow ourselves "to be seen, really seen". We must navigate the shame attached to our ignorance, privileges and inadequacies, practice self-compassion and fully own, and express, our limitations.

A few years after leaving Groupon I found myself a manager again in a fast-growing start-up, HotelTonight. I was the only black person in the office, on a mission to ensure our open roles were filled with women to improve the gender balance.

> 'I tell my team I do not have the answers but have a hypothesis about what could work'

It fell to me to explain to my male peers why it was not appropriate to touch my afro hair without my permission. I was the only one to say it is not OK to Instagram-stalk female candidates for jobs, rating their "hotness" on a 1 to 10 scale. My attempts to educate some of my peers on inclusion best practices created heated debate, my feedback seen as judgment and criticism. My interpretation of some of their actions was viewed as an attack on their authority.

By referencing problematic jokes and awkward physical interactions, I aimed to get colleagues to see these workplace scenarios from my perspective. From their perspective, these office moments were funny. From mine, they were toxic and I quit.

A vulnerable leader shows their staff that they recognise the complexity of navigating a world defined by institutional prejudice. A vulnerable leader is conscious of asymmetries of information created by unique lived experiences, and they are aware of the tension and frustration this creates.

Show your team that you understand the energy required and emotional labour endured by under-represented employees and their allies, who try, and too often fail, to bridge gaps between themselves and coworkers — coworkers who are moving through the same world, same industry and same workplace in vastly different ways.

When I'm presented with a complex challenge, the hustle energy in me pushes me to experiment. I tell my team I do not have the answers but have a hypothesis about what could work. Together, we devise an experiment to achieve our desired results.

Some of these experiments help us reach our goals, others may teach valuable lessons. This is how I practice vulnerability: by embracing the unknowns and unanswerable questions, and being open with my team about risks involved as we work to reach our targets.

A vulnerable leader can admit how competent they are at inclusion building skills, on a personal level and as a representative of their peers. Only when leaders can make such admissions can we begin to have brave conversations about what it takes to increase participation of women, people of colour, people with disabilities and all under-represented groups in our corporate world. When leaders lean into their vulnerability, it signals across their company culture their willingness to experiment with different ideas and be open about ways to progress.

Modelling this behaviour has profound impact. My experience is that C-suite leaders who engage in annual training to develop vulnerability skills see marked increase in team diversity.

Abadesi Osunsade is presenter of the Techish podcast and founder of Hustle Crew, offering diversity and inclusion training to technology employers. She was one of the UK's top 100 black and minority ethnic leaders in technology in a 2018 Financial Times ranking